



Newquay Household Waste Recycling Centre Site Condition Report

November 2025

recycling and recovery UK

www.suez.co.uk

Document Details

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Document Review History

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November 2025	Version 1	Original document

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Introduction

The Environmental Permitting (England and Wales) Regulations 2016 (as amended) require the production of a Site Condition Report (SCR) for any facility that may cause a significant risk to land or groundwater.

Newquay HWRC does not yet have an environmental permit number as it is a new site.

This document constitutes the SCR provided to support the permit application for Newquay HWRC ("the Site"). It is written in line with the requirements of the Environment Agency SCR template.

This report comprises a number of sections; different sections are required to be completed during the lifetime of the facility as detailed below:

Permit Application:	<i>Sections 1, 2 and 3 must be completed and submitted with the application.</i>
Permit Life:	<i>Sections 4, 5, 6 and 7 must be maintained.</i>
Permit Surrender:	<i>Add a new document reference in Section 1, Complete sections 8, 9 and 10 and submit with the surrender application.</i>

1 Site Details

Name of Applicant:	SUEZ Recycling and Recovery UK Ltd
Activity Address:	Newquay HWRC Stret Percival Newquay TR8 4NY
National Grid Reference:	NGR 183275, 60604
Document reference and dates for Site Condition Report at Permit Application and Surrender:	No Site Condition Report or intrusive investigations have previously been required or submitted. This report is prepared and submitted in support of the permit application.
Document references for site plans (including location and boundaries):	Figure 1 – Permit Boundary Plan Figure 2 – Site Location Plan

Note:

The permit application process requires the submission of a site plan to the Environment Agency. Plans must be submitted with the application that shows:

- Site location, the area covered by the site condition report, and the location and nature of the activities and/or waste facilities on the site.
- Locations of receptors, sources of emissions/releases, and monitoring points.
- Site drainage.
- Site surfacing.

If the above information is not shown in the figures accompanying the Site Management Plan, then additional plans must be provided in this SCR.

2 Condition of the Land at Permit Issue

2.1 Environmental Setting

Environmental Setting:

- Geology;
- Hydrogeology, and;
- Hydrology.

The site is located on farm land approximately 2 km south east of Newquay. Access to the site is gained via a new road off the A392 roundabout. The site has an area of 2.3 hectares. It comprises a roughly rectangular shaped area of grassland with a small area of hardstanding bounded by hedgerows to the east and measuring approximately 120 metres by 90 metres. The site is surrounded by fields with access to the site to the west.

The permit boundary is shown on Figure 1.

2.1.1 Geology

The permit boundary and site location are shown in Figures 1 and 2, respectively. The regional geology is taken from British Geological Survey's online site (<http://www.bgs.ac.uk/data/mapViewers/msdviewers.html>). The Geindex (onshore) map viewer was used.

The 1:50,000 scale British Geological Survey (BGS) geological mapping indicates the site to be underlain by bedrock geology of the Bovisand Formation. No superficial deposits are shown. The Bovisand Formation is described by the BGS as "slaty mudstone, medium to dark grey, with thin sandstone beds and sporadic thin limestone beds". There are no BGS borehole records in the vicinity of the site.

2.1.2 Hydrogeology

The Environment Agency classifies the Bovisand Formation at the site to be a Secondary A aquifer. The nearest licenced groundwater abstraction point is 337m to the south east. The nearest Source Protection Zone is 92m to the south east.

The permeability of the bedrock and its aquifer status would suggest that groundwater would be of moderate sensitivity to any potential on site sources of contamination.

2.1.3 Hydrology

There is one small stream located alongside three local ponds, which are 430m north east of the site. Surface run off from the north east stream would most likely enter these ponds. The distance to these features would entail that surface water is considered to be of low sensitivity to any potential on site sources of contamination.

According to the UK Government's flood risk map (<https://flood-map-for-planning.service.gov.uk/>), the site is located in Flood Zone 1, indicating that the site has a low probability of flooding from rivers and the sea.

2.2 Pollution History

Pollution History:

- Pollution Incidents, that may have affected land;
- Historical Land Use, and associated contaminants;
- Any visual/olfactory evidence of existing contamination, and;
- Evidence of damage to pollution prevention measures.

2.2.1 Pollution Incidents

According to Clarkebond's Phase 1 and 2 Site Investigation report, there were 3 substantiated pollution incidents dating back 2002. All of these were within 500m south of the site. There were minor air impacts, and no major water or land impacts.

2.2.2 Historical Land Use and Present Site Use

Historical maps of the site area have been obtained via Groundsure. Pertinent information determined from review of these maps, as well as other publicly available aerial imagery, is summarised below and the report is presented in full in Appendix A.

1881

The site is part of a field. The surrounding land is occupied by fields and farmland.

1933 – 2003

No changes are evident.

2017

Infrastructure for the development of the wider area is present. Soil stockpiles are present to the south.

2022

Topsoil stockpile is present. This had gone by 2024.

Summary

The mapping provided by the Groundsure report details that the site was an undeveloped open field in the earliest maps available dated 1881. No significant changes were recorded in the following maps. Aerial photography from 2017 shows the site as remaining undeveloped, with the exception of the infrastructure installed for the wider site area.

2.2.3 Visual/Olfactory Evidence of Existing Contamination

During the Phase 1 and 2 Site Investigation conducted by Clarkebond, no visual or olfactory evidence of contamination was encountered in the field.

2.2.4 Evidence of Damage to Pollution Prevention Measures

There is no evidence of damage to pollution prevention measures as none are installed.

2.3 Previous Assessments

Evidence of Historic Contamination:

- Historical Site Investigation;
- Historical Assessments, and;
- Remediation and Verification Reports.

2.3.1 Historical Site Investigations, Assessments, Remediation and Verification Reports

Clarkebond's Phase 1 and 2 Site Investigation report outlines previous investigations conducted near the site. Their report outlines reviewed and summarised the findings of those previous investigations.

A Phase 1 and 2 Gound Investigation Report for an adjacent site to the south has been undertaken by the Cornwall Council in 2010, reference 63549 Rev 0, in conjunction with a Mining Search Report ref 63549 dated December 2010.

A Ground Investigation Report was undertaken by Quantum Geotech in 2019, reference Q0040, for the same adjacent site to the south as the former location for the proposed HWRC.

3 Permitted Activities

<p>Permitted Activities:</p>	<p>HWRC</p> <p>The following D+R Codes that will be carried out at the site are listed as follows:</p> <p>D9 Physico-chemical treatment not specified elsewhere in Annex IIA which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D8 and D10 to D12</p> <p>D14 Repackaging prior to submission to any of the operations numbered D1 to 13</p> <p>D15 Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)</p> <p>R3 Recycling/reclamation of organic substances which are not used as solvents</p> <p>R4 Recycling/reclamation of metals and metal compounds</p> <p>R5 Recycling/reclamation of other inorganic materials</p> <p>R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)</p> <p>The maximum permitted annual tonnage of waste accepted at the site will not exceed 25,000 tonnes.</p>
<p>Non-permitted Activities Undertaken:</p>	<p>There have not been any non-permitted activities undertaken at this site.</p>
<p>References: Plan showing activity layout; Env Risk Assessment.</p>	<p>Figure 1 Permit Boundary Plan</p> <p>Figure 2 Site Location Plan</p> <p>Figure 3 Indicative Site Layout Plan</p> <p>Document 1.3 Environmental Risk Assessment.</p>

4 Changes to the Activity

Have there been any changes to the activity boundary?	Not applicable.
Have there been any changes to the permitted activities?	Not applicable.
Have any ‘dangerous substances’ not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?	Not applicable.
Checklist of supporting information:	<p><i>Plan showing any changes to the boundary (where relevant)</i></p> <p><i>Description of the changes to the permitted activities (where relevant)</i></p> <p><i>List of ‘dangerous substances’ used/produced by the permitted activities that were not identified in the Application Site Condition Report (where relevant)</i></p>

4.1 Changes to the Activity

This report has been produced as part of a new permit application for the Newquay HWRC. Hence, there have been no changes recorded to any site activities.

5 Measures Taken to Protect Land

Use records that you collected during the life of the permit to summarise whether pollution prevention measures worked. If you can't, you need to collect land and/or groundwater data to assess whether the land has deteriorated.

Supporting Information:

Inspection records and summary of findings of inspections for all pollution prevention measures, and;
Records of maintenance, repair and replacement of pollution prevention measures.

5.1 Site Surfacing, Drainage and Monitoring

The site surface and drainage will comprise of the following elements::

- The entire site operational area is constructed with impermeable surfacing of a sufficiently durable construction to withstand the weight of the waste and containers stored at the facility, and the operational vehicles using the facility.
- The surface provides an impermeable barrier to protect the underlying ground/groundwater from the transmission of potential contamination by the site activities.
- The site will be served by a surface water drainage system and a foul water drainage system.
- The surface water system will serve all site roadways, parking areas and run off from building roofs. The surface water systems comprise a number of gullies and goes through a full retention separator before leading to an infiltration tank to be discharged to groundwater.
- The foul water drainage system will serve the office welfare facilities and areas of the site on which waste is stored that may have the potential to cause contaminated run off. Foul water flows through 2 different bypass separators covering different part of the site before draining to foul sewer.
- The surface water and foul water sewer are each fitted with shut-off valve that can be used to prevent water escaping from site e.g., in the event of a fire. The shut-off valve redirects water to a 36 m³ sealed tank.
- The integrity of the impermeable surface will be inspected by site staff on at least a weekly basis, as required by SUEZ's IMS, and any structural deficiencies will be reported immediately to the Site Manager through the Vision App. Repairs will be initiated as soon as practicable.
- Solid matter accumulating in the interceptor and gullies will be removed as and when required by a suitably experienced and registered waste disposal contractor. As a minimum the site interceptor will be inspected at least every 6 months and cleaned as necessary.

Further details may be found in the 1.2 Operations and Emissions Management Plan.

6 Pollution Incidents That May Have Had an Impact on Land, and Their Remediation

Summarise any pollution incidents that may have damaged the land. Describe how you investigated and remedied each one. If you can't, you need to collect land and /or groundwater reference data to assess whether the land has deteriorated while you've been there.

Supporting Information:

Records of pollution incidents that may have impacted on land, and;
Records of their investigation and remediation.

6.1 Pollution Incidents

There are no pollution incidents that have been investigated and remedied from site activities as this is a new permit application.

6.2 Investigation and Remediation Records

No further information is available.

7 Soil, Gas and Water Quality Monitoring (Where Undertaken)

Provide details of any soil gas and/or water monitoring you did. Include a summary of the findings. Say whether it shows that the land deteriorated as a result of the permitted activities. If it did, outline how you investigated and remedied this.

Supporting Information:

Description of soil gas and/or water monitoring undertaken, and;
Monitoring results (including graphs)

7.1 Description of Monitoring

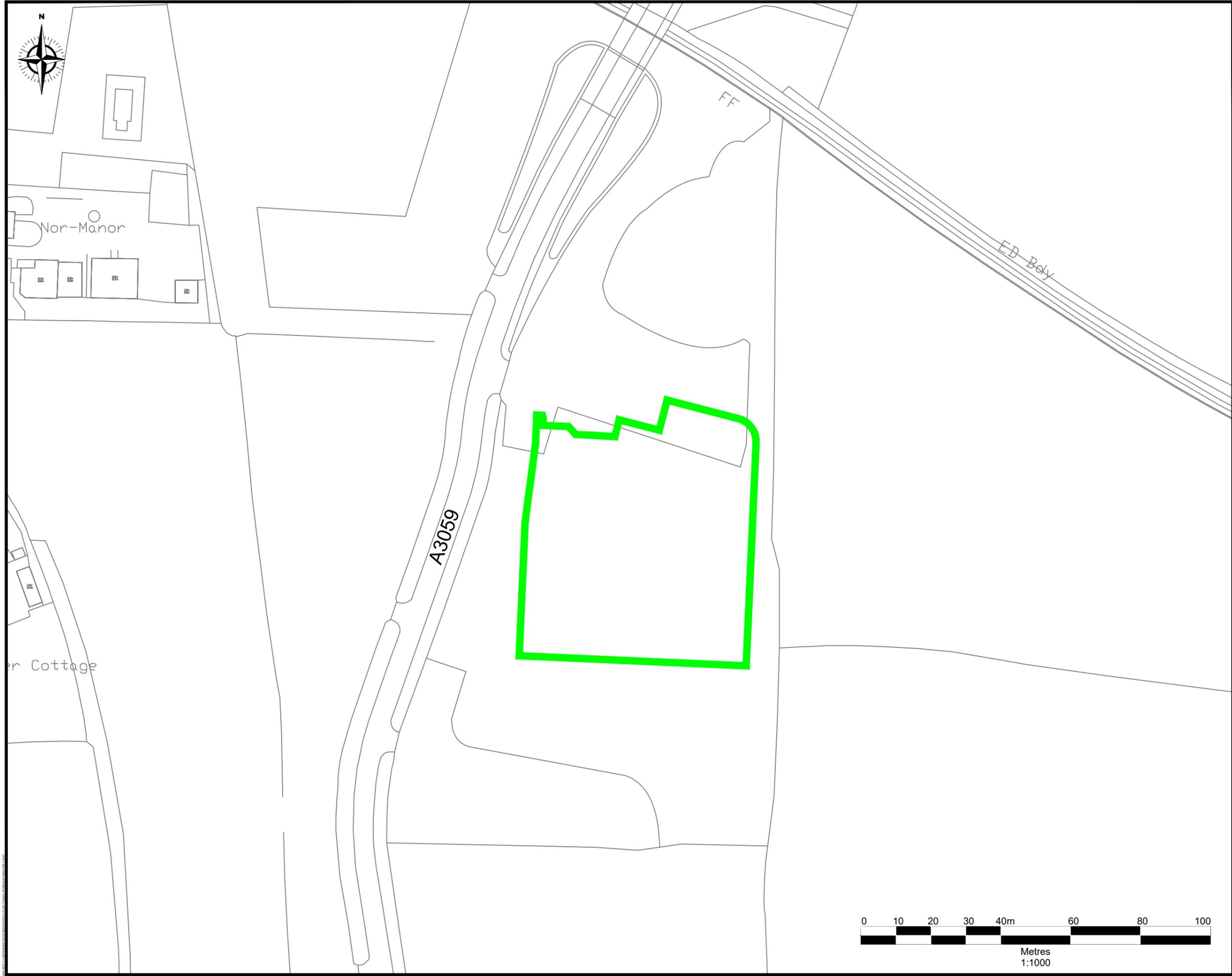
No soil, gas and water quality monitoring has been undertaken at the site.



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Figures

Figure 1. Permit Boundary Plan



Notes

1. Reproduced from the Ordnance Survey Map with the permission of the Controller of His Majesty's Stationary Office, Crown Copyright and Database Rights 2025. Ordnance Survey AC0000808122/100004910.

 Permit Boundary

Rev subject date

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Darwen Resource Recovery Park, Lower Eccleshill Road, Darwen, BB3 0RP
Tel: (01254)819700, Fax: (01254)819749, Email: richard.bisset@suez.com

Site
Newquay HWRC

Title
Permit Boundary Plan

Scale
1:1000@A3

Date
November 2025

Drawing Ref
Nwq-PER-1125-01

Drawn by
JA

Checked by
KH

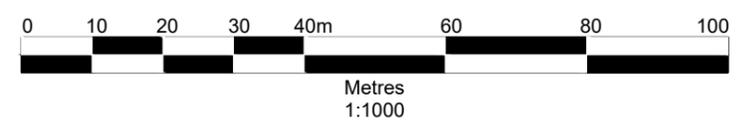
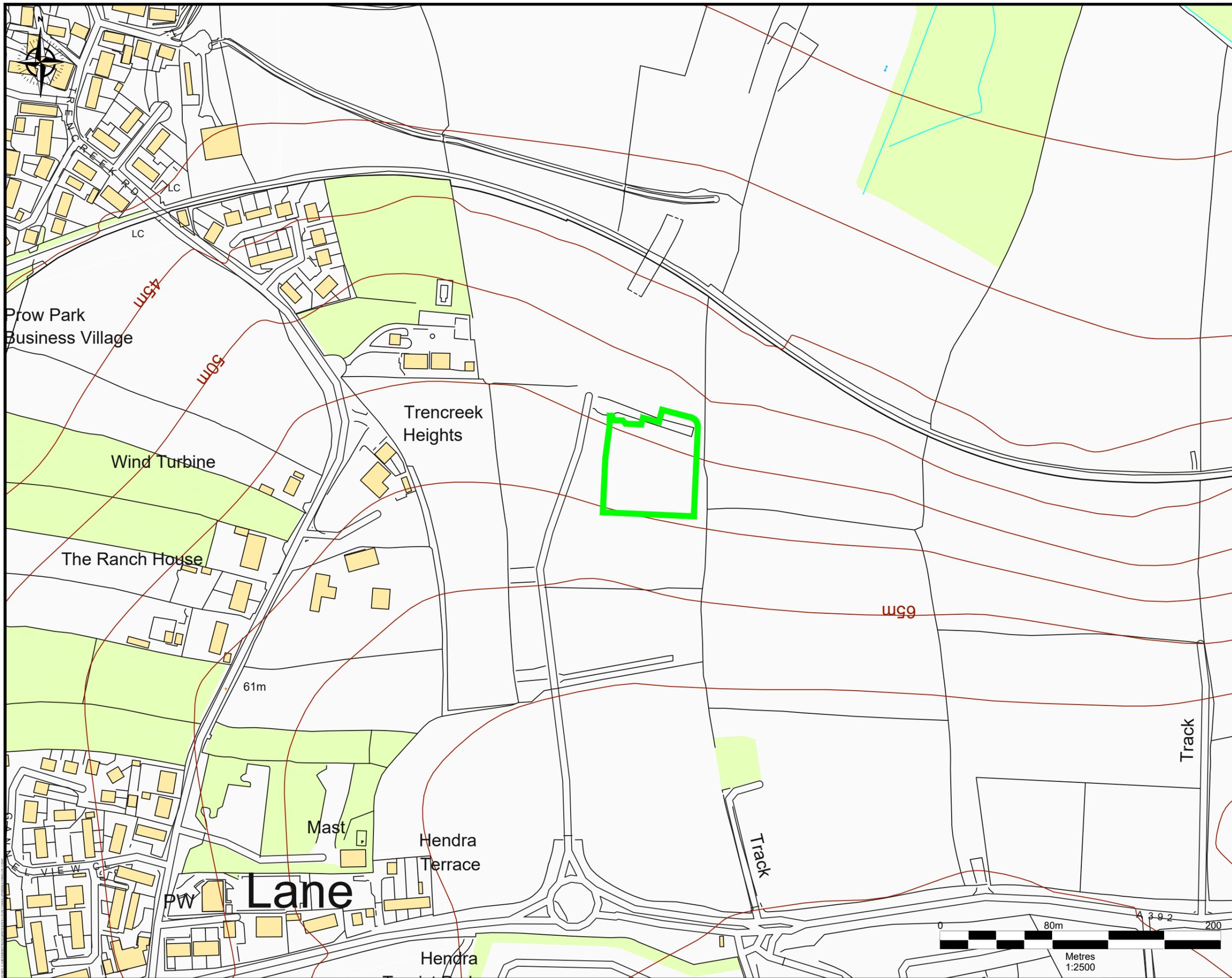




Figure 2. Site Location Plan



Notes

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Ordnance Survey AC0000808122/100004910.

 Site Location

Rev	subject	date



Darwen Resource Recovery Park, Lower Eccleshill Road, Darwen, BB3 0RP
Tel: (01254)819700, Fax: (01254)819749, Email: richard.bisset@suez.com

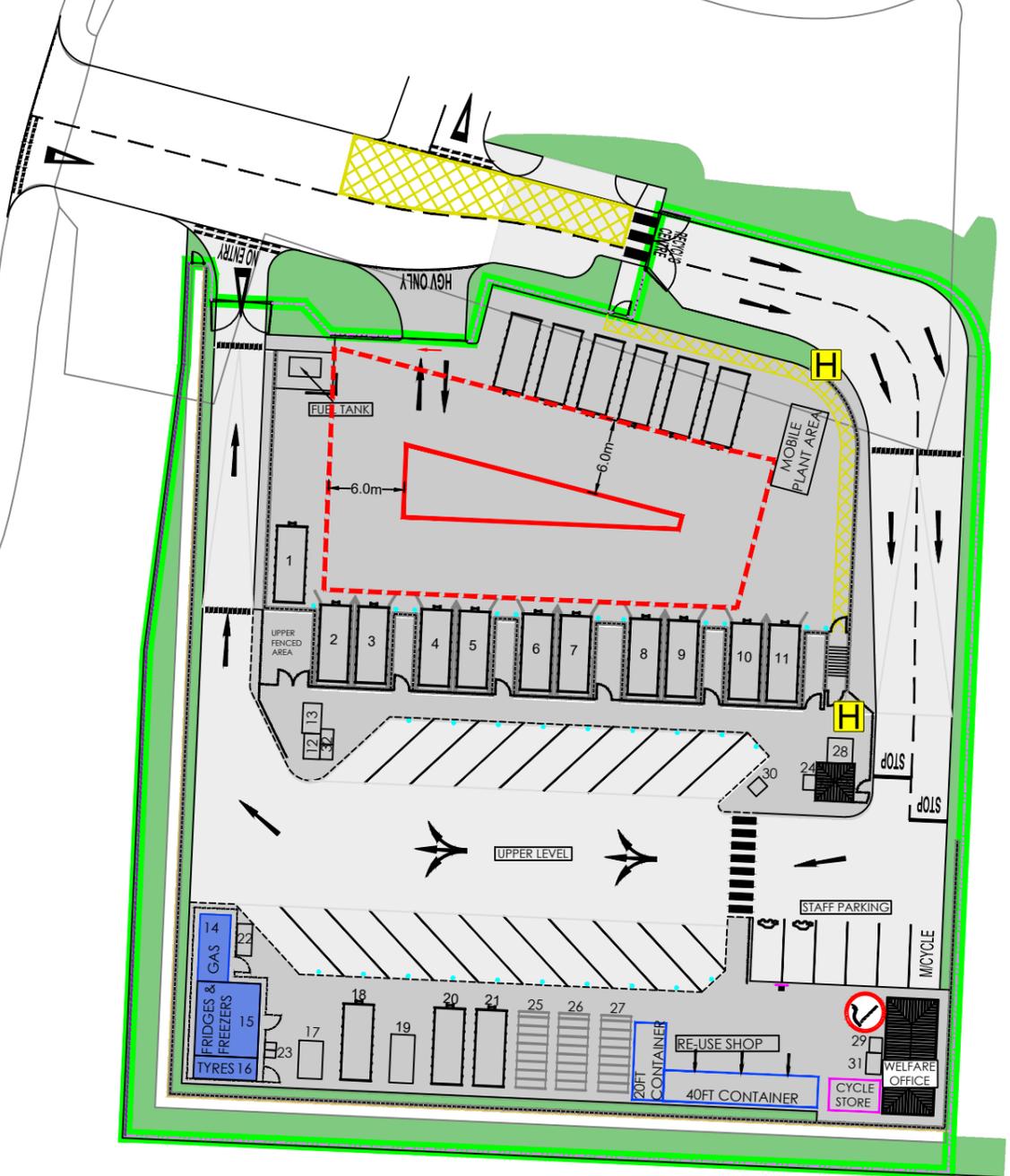
Site	Newquay HWRC
Title	Site Location Plan
Scale	1:2500@A3
Date	November 2025
Drawing Ref	Nwq-LOC-1125-01
Drawn by	JA
Checked by	KH



Figure 3. Indicative Site Layout Plan



A3059



Notes

1. Reproduced from the Ordnance Survey Map with the permission of the Controller of His Majesty's Stationary Office, Crown Copyright and Database Rights 2025 Ordnance Survey AC0000808122/100004910.

-  Permit Boundary
-  Quarantine Area
-  Soft Landscaping/Unmade Ground
-  Smoking Area
-  Fire Hydrant

Rev	subject	date



Darwen Resource Recovery Park, Lower Eccleshill Road, Darwen, BB3 0RP
Tel: (01254)819700, Fax: (01254)819749, Email: richard.bisset@suez.com

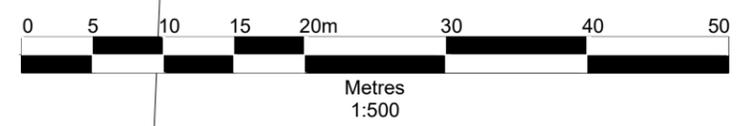
Site: **Newquay HWRC**

Title: **Indicative Site Layout Plan**

Scale: **1:500@A3**

Date: **November 2025**

Drawing Ref: Nwq-LAY-1125-01	Drawn by: JA
	Checked by: KH





Appendix

Appendix A. Clarkebond Phase 1 & 2 Site Investigation Newquay HWRC

Phase 1 & 2 Site Investigation

Newquay HWRC



E06494-CLK-XX-XX-RP-GT-0001

SUEZ Recycling and Recovery UK Ltd

Report No.	Date.
E06494-CLK-XX-XX-RP-GT-0001	15/05/24

Project
Newquay HWRC

Client Name
SUEZ Recycling and Recovery UK Ltd

Issue Date	Issue	Status	Comments
15 th May 2024	P01	S2	First issue

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H	Chemical Test Certificates

Executive Summary

Client	SUEZ Recycling and Recovery UK Ltd
Site	Newquay HWRC
Location	Newquay, TR8 4NN. NGR 183275, 60604.
Approximate area	2.3 Hectares
Topography	Elevations range from approximately 53m OD in the north to 62m OD in the south.
Current land use	Farmland.
Proposed development	House Waste Recycling Centre (HWRC)
Client Brief	Identify foundation and geotechnical requirements and any significant contamination risks associated with the site.
History of Site & Surroundings	Ordnance Survey plans show the site to have remained undeveloped. A small area of hardstanding present in south western corner of site with the rest of the site as grassland.
Published Geology	Bovisand Formation (slaty mudstone with thin sandstone and limestone beds). No superficial Deposits shown.
Radon	No radon protective measures are required.
Hydrogeology	Bedrock Geology: Secondary A aquifer The site does not lie in a source protection zone. There are no licenced groundwater abstraction points within 500m of the site. There are no Source Protection Zones within 5km of the site. Groundwater is considered to be of low sensitivity to any potential on site contamination.
Hydrology	The nearest surface water is an inland river approximately 185m north of the site. The distance to this would entail that surface water is considered to be of low sensitivity to any potential on site sources of contamination. No surface water abstraction are within 500m of the site.
Landfill sites	No landfills located within 250m of the site.
Previous site investigations	Clarkebond have not been made aware of any previous investigations undertaken at this site.
This site Investigation	Two rotary cored boreholes to 10m bgl One rotary open holed groundwater monitoring well to 9m bgl. 10 Dynamic probes 10 machine excavated trial pits. 2 BRE 365 infiltration tests.
Monitoring	One groundwater level monitoring visit. 6.6m bgl (54 m OD) during monitoring in April 2024.
Ground conditions	Residual soils (0.50m – 1.70m) over weathered Bovisand Formation (0.80 – 2.40 m) over Bovisand Formation (1.10m – 2.80m). No groundwater during investigation.
Shrinkable soils	Soils are non-shrinkable.
Buried concrete	DS1 & AC1.
Floor slabs	Ground bearing floor slab suitable.
Gas protection	No gas protection measures required. No radon protection measures required.
Slope stability	Gradients are considered generally stable but careful assessment of temporary cuts will be required.

Pavement	Design CBR of 3% at existing ground level. Where the cuts take the formation level into the underlying mudstone, then a CBR value of 5% would be achievable.
Soakaways	Infiltration rates recorded of 3.3 to 6.5×10^{-4} m/s.
Natural cavities	None expected.
Mining	None expected.
Contamination Considerations	No risks identified.
Reuse of Soils on or Off site	Clean and natural soils may be re-used on site without any materials management plan (MMP).
Waste Categorisation for Off-site Disposal	WAC testing has been undertaken on sample of natural soils and met the limits for Inert Waste.

1 Introduction

Clarkebond (UK) Limited was commissioned by SUEZ Recycling and Recovery UK Ltd to undertake a Phase 1 & 2 Site Investigation on a site known as Newquay HWRC, Newquay, Cornwall TR8 4NN.

1.1 Proposed Development

It is understood that the site is being considered for a new House Waste Recycling Centre (HWRC). The site will be built at two different levels, and construction will require cutting into the existing slope by some 4m in the south with a retaining wall to accommodate the level difference. A provisional development layout is presented in Appendix A.

1.2 Scope of Investigation

The objectives of the investigation were to determine the sub-surface conditions in respect of:

- Phase 1 Desk Study.
- Rotary Cored Boreholes to determine retaining wall design parameters.
- Infiltration Testing to BRE 365.
- Trial pitting to determine shallow ground conditions.
- Dynamic probing to determine rockhead.
- Soakaway potential.
- Contamination assessment to consider potential significant pollutant linkages arising from the historic land uses on and off site.
- One groundwater monitoring visit.
- Assessment of near surface materials for waste classification to allow cost prediction for any off-site disposal.

1.3 Previous Investigations

A Phase 1 and 2 Ground Investigation Report for an adjacent site to the south has been undertaken by the Cornwall Council in 2010, reference 63549 Rev 0, in conjunction with a Mining Search Report ref 63549 dated December 2010.

A Ground Investigation Report was undertaken by Quantum Geotech in 2019, reference Q0040, for the same adjacent site to the south as the former location for the proposed HWRC.

During the production of this report the information in those reports have been reviewed and a summary of their findings are described in Section 3.

1.4 Limitations

This report is provided for the benefit only of the party to whom it is addressed and we do not accept responsibility to any third party for the whole or any part of the contents and we exercise no duty of care in relation to this report to any third party.

Where intrusive investigations have been completed, information, comments and opinions given in this report are based on the ground conditions encountered during the site work and on the results of laboratory and field tests performed during the investigation. However, subsoils are inherently variable and hidden from view such that no investigation can be exhaustive to the extent that all soil conditions are revealed. Conditions may therefore be present beneath the site that were not apparent in the data

reviewed as part of this assessment. In particular, it should be noted that groundwater levels vary due to seasonal and other effects, and may at times differ to those measured during the investigation.

This assessment has been based to a large extent on data acquired from Third Parties. This data has been taken at face value and has not been subjected to any third party validation.

Unless specifically noted to the contrary, it should be assumed that this report has not been submitted to any regulatory authorities for approval.

2 Site Setting

Site Address: Newquay HWRC, Newquay, Cornwall TR8 4NN

National Grid Reference: 183275, 60604

The site is located approximately 2km south east of Newquay as shown on Figure 2.1 below.



Figure 2.1 Site Location

2.1 Site Description

A site walkover survey was undertaken in March 2024 by Clarkebond. Access to the site is gained via a new road off the A392 roundabout.

The site comprises a roughly rectangular shaped area of grassland with a small area of hardstanding bounded by hedgerows to the east and measuring approximately 120 metres by 90 metres. The ground surface generally slopes from 63 m OD in the south to 54 m OD in the north.

The site had been stripped of topsoil prior to the walkover.

2.2 Adjacent land Use

The site is surrounded on all sides by fields with access to the site to the west. The plot of land to the north was occupied by a construction site at the time of the investigation.

Both juvenile and mature trees of various species were observed bordering the site to the east.

3 Summary of Previous Work

Two previous investigations have been undertaken at an adjacent site to the south by Cornwall Council ref 63549 dated 2010, and by Quantum Geotech ref Q0040 dated 2019.

A summary of the salient findings of these reports is presented below.

3.1 Investigation

The 2010 investigation by the Cornwall Council comprised:

- 2 dynamic sample and Rotary cored boreholes taken down to depths of up to 7.65m bgl;
- 4 trial pits taken down to depths of up to 3.6m bgl;
- In-situ Standard Penetration Testing (SPT) in boreholes;
- In-situ Soakaway Testing in trial pits;
- 5 In-situ Plate Bearing Tests;
- And the installation of gas and groundwater monitoring standpipes.

The 2019 investigation by Quantum Geotech comprised:

- 4 trial pits with bulk samples taken;
- CIST tests within each trial pit;
- Soakaway tests to BRE 365.

The investigations were followed by laboratory testing comprising:

- Metals
- PAH
- BRE sulphate suites
- Atterberg Limits and moisture content
- Particle size distribution

3.2 Ground Conditions

The two previous ground investigations generally recorded topsoil over clayey slightly sandy gravel interpreted as a residual soil, underlain by very weak brown grey shale or slate of the Bovisand Formation recovered as slightly clayey sandy gravel proven to 2.30m bgl.

The 2019 investigation also encountered dolerite intrusions within the Bovisand Formation, completely weathered to a gravelly sand in one of the trial pits.

3.3 Contamination

No soil contamination risks were identified.

3.4 Mining

A Cornwall Consultants Ltd mining report concluded that the site and surrounding area were free from risks.

4 Environmental Setting

4.1 Geology

The 1:50,000 scale British Geological Survey (BGS) geological mapping indicates the site to be underlain by bedrock geology of the Bovisand Formation. No superficial deposits are shown.

The Bovisand Formation is described by the BGS as “slaty mudstone, medium to dark grey, with thin sandstone beds and sporadic thin limestone beds”.

There are no BGS borehole records in the vicinity of the site.

4.2 Soil Geochemistry

The BGS “Normal Background Concentrations of Contaminants in English Soils” indicates the typical estimated concentrations of each determinant in topsoil in the locality of the site, as shown in Table 4.1.

Table 4.1 Summary of BGS Estimated Soil Geochemistry

Determinant	Concentration Range (mg/kg)
Arsenic	25 – 35
Cadmium	1.8
Chromium	60 – 90
Lead	100
Nickel	15 – 30

4.3 Hydrogeology

The Environment Agency classifies the Bovisand Formation at the site to be a Secondary A aquifer. The nearest licenced groundwater abstraction point is 337m to the south east. The nearest Source Protection Zone is 92m to the south east.

The permeability of the bedrock and its aquifer status would suggest that groundwater would be of moderate sensitivity to any potential on site sources of contamination.

4.4 Hydrology

There are two surface water features within 250 m of the site, relating to two inland rivers 185 m and 224 m north east of the site which lead to local ponds 430 m north east. The distance to these features would entail that surface water is considered to be of low sensitivity to any potential on site sources of contamination.

4.5 Site History

Historical maps of the site area have been obtained via Groundsure. Pertinent information determined from review of these maps, as well as other publicly available aerial imagery, is set out in Table 4.2, with the maps given in Appendix B.

Table 4.2 Historical map extracts

<p>1881: The site is part of a field. The surrounding land is occupied by fields and farmland.</p>	<p>1933: No changes evident</p>
<p>1980: No changes evident</p>	<p>2003: No changes are evident</p>



2017: Infrastructure for the development of the wider area is present. Soil stockpiles are present to the south



2022: Topsoil stockpile is present. This had gone by 2024.

4.5.1 Summary

The earliest maps available dated 1881 showed the site to be an undeveloped open field. No significant changes were recorded in the following maps. Aerial photography from 2017 shows the site as remaining undeveloped, with the exception of the infrastructure installed for the wider site area.

4.6 Landfill Sites

No current or historical landfills are known to exist within 250m of the site.

4.7 Radon

The Groundsure report shows the site is in an area where elevated radon levels are expected to be found in 1 to 3% of properties. No radon protection measures are required.

4.8 Statutory Authority Records

A review of public registers contained within the Enviro-Geo Insight Report has been undertaken. These entries relate to trade directories, pollution control registers, hazardous sites, enforcement notices etc. A single entry that might be of relevance to the site is an active petrol filling station listed at Rule Lane, TR8 4XB approximately 483 m to the south west.

For full details of all entries, reference should be made to the Enviro-Geo Insight Report in Appendix C.

4.9 Sensitive Land Uses and Designated Areas

None within 250m.

5 Site Investigation

The intrusive investigation was proposed by Clarkebond. No contamination or geotechnical risks that required specific investigation were identified from the desk study and site walkover. Consequently the positions of the exploratory holes were intended to provide a reasonable coverage of the site for an assessment of general ground conditions, reflecting the proposed development layout.

The investigation was undertaken in April 2024.

The procedures followed in this site investigation are based on BS 5930:1999 + Annex 2:2010 - Code of Practice for Site Investigations. The soils and rocks encountered have been described in accordance with BS5930:1999 + Annex 2:2010 and BS EN ISO 14688-1:2002 and BS EN ISO 14689-1:2003.

The approximate positions of the exploratory holes are shown on the Exploratory Hole Location Plan Drawing E06494- CLK-XX-XX-DR-GT-0001 P02 in Appendix D and the exploratory hole records are included in Appendix E.

5.1 Dynamic Probing

Ten Dynamic Probe Holes (DP1 to DP10) were undertaken using super-heavy dynamic probe equipment. The dynamic probe apparatus conforms to BS 1377 (1990) Part 9 and effectively drives a 90° (sacrificial) cone into the ground using a 63.5kg automatic trip hammer falling over 750mm. The number of blows required to achieve increments of 100mm penetration is recorded and plotted graphically on the records, which are presented in Appendix E.

5.2 Trial Pits

Ten trial pits (TP1 to TP10) were excavated to depths varying between 1.80m and 2.80m below ground level (bgl) using a wheeled backhoe excavator.

The profiles of strata or other features were recorded as excavation proceeded and measurements taken from ground level. Representative samples were taken, where appropriate, for laboratory analysis. Detailed descriptions of the strata encountered, groundwater observations and excavation stability notes, together with any other pertinent information observed, are included on the trial pit records, which are included in Appendix E.

5.3 Infiltration Testing

In order to determine the permeability of the ground to assess the suitability of soakaways for drainage at the site, infiltration testing was undertaken in two machine excavated trial pits (SA1 to SA2).

The results of the infiltration testing are presented in Appendix F.

5.4 Rotary Cored Boreholes

Two rotary cored boreholes (RC1 and RC2) were formed to depths of 9.80m and 10.00m respectively in order to provide geotechnical information for retaining wall design. A detailed description of all strata encountered and other pertinent information are included on the borehole logs in Appendix E.

5.5 Installations

A groundwater monitoring well was installed into one rotary open borehole on completion (GW1). The well was designed to allow monitoring of shallow groundwater within the Bovisand Formation to 8m bgl. The response zone comprised slotted pipe with a 10mm inert gravel surround at 5 to 8m bgl. The strata above the response zone was sealed with bentonite. All remaining exploratory holes were backfilled with arisings and the ground surface reinstated.

6 Laboratory Analysis

Samples obtained during the investigation were subjected to a range of geotechnical and chemical testing at appropriate accredited laboratories.

Samples were submitted for geotechnical laboratory testing to characterise the engineering properties of the soil. The following testing was scheduled:

- 4 x Particle Size Distribution
- 4 x 2.5kg compaction
- 9 x BRE SD1 sulphate suite

Testing was carried out in accordance with the procedures outlined in BS EN ISO 14688-1:2018, 14688-2:2018 and 14689:2018 (i.e. Eurocode 7). Geotechnical laboratory test data is presented in Appendix G.

Soil samples were sent for chemical analysis to i2 Analytical laboratories to be analysed for:

- 6 x Full suite comprising arsenic, cadmium, copper, chromium, lead, mercury, nickel, selenium, zinc, Speciated PAH, speciated Total Petroleum Hydrocarbons (TPHCWG), Soil organic matter content (SOM), pH and soluble sulphate.
- 4 x TPH CWG, BTEX and speciated PAH
- 1 x Full WAC Suite

The chemical laboratory test results are presented in Appendix H.

7 Ground Conditions

7.1 General

The results of this investigation were consistent with the anticipated geology. Residual soils were encountered overlying extremely weak weathered mudstone of the Bovisand Formation over very weak mudstone of intact Bovisand Formation. No topsoil or made ground was encountered due to a topsoil strip of the site prior to the investigation.

A summary of the strata encountered is presented in the following sections. For full details of the strata encountered reference should be made to the exploratory hole logs in Appendix E.

Table 7.1 Ground Conditions

Hole	Gravelly clay	Clayey Gravel	Weathered Mudstone	Mudstone	Ground water
TP1	-	1.6	2.4	2.6*	Dry
TP2	-	1.7	2.4	2.6*	Dry
TP3	-	1.2	2.2	2.4*	Dry
TP4	0.5	-	1.1	2.4*	Dry
TP5	0.8	-	1.6	2.8*	Dry
TP6	-	0.9	2.2	2.4*	Dry
TP7	-	1.0	2.0	2.3*	Dry
TP8	-	1.0	2.1	2.3*	Dry
TP9	-	1.0	2.2	2.4*	Dry
TP10	-	0.9	2.1	2.4*	Dry
SA01	1.0	-	1.8*	-	Dry
SA02	1.5	-	1.8*	-	Dry
RC01	1.0		2.2	9.8*	Dry
RC02	1.1		2.4	10*	Dry

* Base of hole

7.2 Residual Soils

The Bovisand formation had weathered completely to a residual soil of two distinct materials: predominantly granular and locally cohesive.

The granular soils were composed of pale grey to grey brown clayey gravel to depths of up to 1.70 m.

The cohesive soils comprised firm to stiff pale grey and grey brown silty gravelly clay to depths of up to 1.50 m. These were encountered locally in SA1 and SA2 to the north, TP4, TP5 and RC2 in the site centre, and RC1 to the south of the site.

These soils were generally deepest in the northern and southern sides of the site.

7.3 Weathered Bovisand Formation

The residual soils were underlain by weathered Bovisand Formation. This material comprised extremely weak grey brown mudstone recovered as angular gravel encountered at depths ranging between 0.80m to 2.40m bgl. Some spalling was encountered within this stratum during excavation.

7.4 Bovisand Formation

The weathered mudstone was underlain by intact Bovisand Formation typically composed of very weak grey brown mudstone recovered as angular gravel and cobble sized fragments. This material was encountered at depths ranging from 1.10 m to 2.80 m bgl, the maximum depth investigated.

Hard digging was experienced within the Bovisand Formation and the trial pits were typically terminated within 0.3m of encountering this stratum.

7.5 Groundwater

No groundwater was encountered during the intrusive works. Monitoring of groundwater levels within the standpipe installed was undertaken on April 2024 indicating a groundwater level of 6.60m bgl (54 m OD).

7.6 Field Observations of Contamination

No visual or olfactory evidence of contamination was encountered.

8 Geotechnical Assessment

8.1 Proposed Development

It is understood that the site is being considered for a new House Waste Recycling Centre (HWRC). The site will be built at two different levels, and construction will require cutting into the existing slope by some 4m in the south with a retaining wall to accommodate the level difference. A provisional development layout is presented in Appendix A.

A further retaining wall will be required in the centre of the site to separate the two levels.

8.2 Summary of Ground Conditions

The investigation identified between 0.50m and 1.70m thick residual soils over the weathered Bovisand Formation encountered between 0.80 m and 2.40 m bgl. The Bovisand Formation bedrock itself was encountered at depths ranging from 1.10m to 2.80m bgl.

During subsequent monitoring of the standpipe, groundwater was recorded at depths of approximately 6.6m bgl in April 2024.

8.3 Shrinkable Soils

Cohesive soils (clay and silt) may undergo volume change when subject to changes in moisture content. This can cause ground movement of soils where seasonal changes or tree root action affect the moisture content. Where foundations are constructed in such soils these movements can lead to damage of the superstructure. These movements are greatest where trees are removed or tree root systems are severed as this allows the soils to regain their equilibrium moisture content resulting in expansion.

The NHBC (National House Building Council) has derived minimum foundation depths and other precautions relating to ground movements in shrinkable soils. These standards are set out in NHBC Chapter 4.2 "Building Near Trees" and are commonly adopted for both residential and non-residential structures.

Shrinkable soils are generally considered as clays having a modified plasticity index (I_p) of 10% or greater. The Modified Plasticity Index is defined as the Plasticity Index (I_p) of the soil multiplied by the percentage of particles less than 425µm. Soils containing less than 35% fine particles (< 63µm) are non-shrinkable.

The results of four particle size distribution tests on samples of the granular strata recorded < 63µm fractions ranging from 5 to 19%. On this basis the granular soils tested are not considered to be shrinkable and no precautions are needed in this regard.

8.4 Upper Level

The upper level will comprise public parking and unloading areas together with a site office. Due to the depth of cut the formation level should comprise the Bovisand Formation mudstone. This material would provide a safe bearing capacity of 200 kPa.

The Bovisand Formation is non-shrinkable and therefore no precautions are required in relation to building near trees.

8.5 Floor Slabs

Generally the underlying soils are non shrinkable and therefore a ground bearing floor slab would be suitable if desired. All loose natural strata must be removed and the formation proof rolled prior to placing well compacted high quality granular fill.

No radon or ground gas protection measures are considered to be necessary.

8.6 Lower Level

The lower level will be built off a concrete slab with a proposed kiosk and fuel tank constructed on top of this slab. Due to the depth of cut (circa 3-4 m) it is envisioned that the formation level will be comprise the Bovisand Formation mudstone. This stratum would provide more than sufficient support for the slab.

8.7 Buried Structures

The site has remained undeveloped therefore buried structures are not anticipated.

8.8 Concrete Protection

Buried concrete classification is based on guidelines provided in BRE Special Digest 1 (BRE, 2005). The soils on site are potentially pyritic; therefore an assessment for pyritic material was made in accordance with BRE Special Digest 1 (2005).

Chemical Analysis was undertaken on 9 soil samples for pH and a total potential sulphate suite (water soluble sulphate, total sulphate and total sulphur).

An assessment for total potential sulphate indicates that the soils are not considered to be pyritic and the design class should be based on soluble sulphates.

The pH values were 8.0 to 8.6 with water soluble sulphate concentrations of <10mg/l. Therefore it is recommended that a Design Class of DS1 and AC1 should be assumed for buried concrete in accordance with BRE Special Digest 1 assuming natural ground and mobile groundwater conditions.

8.9 Retaining Walls

It is understood that the development will be accommodated by retaining walls. The upper and lower levels of the site will be divided by the waste bays and these will also form push walls. It is anticipated that these will be of RC construction.

Several options are available for the remainder of the walls, either RC, king post and plank, contiguous bore piles, and if space is available modular gravity walls may be suitable.

Where temporary cuts are required to accommodate construction it is recommended that these are formed in short bays rather than excavation of the entire length of the cut. Temporary cuts within the intact mudstone bedrock should remain stable at up to 70 degrees, reduced to 45 degrees within the weathered materials and residual soil. Notwithstanding this, a detailed temporary works design and safety assessment would be required once final retaining solutions are decided.

Design parameters for the various soils present are shown in Table 8.1.

Table 8.1 Retaining wall parameters

Material	Phi degrees	C' kPa	Cu kPa	Bulk Density Mg/m3	Saturated Density Mg/m3
Residual Soil (gravelly clay / clayey gravel)	28	0	50	18	19
Weathered Bovisand Formation	34	0	100	20	21
Bovisand Formation bedrock	38	0	150	21	22

8.10 Earthworks

The classification and compaction testing indicate that the majority of these soils are likely to be classified as granular fill (Class 1A) in accordance with Series 600 of the Highway Agency Specification for Highway Works (HA, 2016).

The results of four laboratory 4.5kg compaction tests indicate that natural moisture contents are close to the optimum required for full compaction and soils should be easily compactable for use as general fill without drying or modification.

8.11 Pavement Design

The near surface soils are predominantly gravelly clays and a design CBR of 3% should be achievable provided the formation is protected from water ingress and over-trafficking. Where the cuts take the formation level into the underlying mudstone, then a CBR value of 5% would be achievable.

Care must be taken to avoid trafficking or working of soils in wet conditions. Reworked soils are prone to rapid degradation upon wetting; should soils become saturated during construction then CBR values of less than 2% may be encountered.

All Topsoil should be removed and the formation level should be proof rolled to identify any loose or soft spots, which should be removed and replaced with compacted granular fill. The conditions prevailing at the time of construction will affect the CBR of the sub-grade soil and its strength. Research has shown the importance of the equilibrium moisture content of the sub-grade. The relationship between soil suction and the moisture content shows that a soil that becomes wet during construction will retain water and will therefore be weaker under the pavement in the equilibrium condition than a foundation that has remained dry, particularly for soils of low to medium plasticity. Consequently the formation level will also need to be protected during inclement weather from deterioration; all slopes should be trimmed to falls to shed rain water and the surface sealed to limit infiltration.

8.12 Excavations

Conventional mechanical backhoe excavators should prove suitable for excavation within the weathered Bovisand Formation. Deeper excavations into the intact mudstone bedrock may require heavy plant or breaking out.

Although no groundwater was encountered during the investigation undertaken in April 2024, a subsequent monitoring visit a water table was recorded at approximately 6.60m bgl.

8.13 Soakaway Drainage

Infiltration testing was undertaken in accordance with BRE 365 in two locations (SA01 and SA02). Each test entailed draining the pit three times.

The results recorded infiltration rates from 3.3×10^{-4} m/s to 6.5×10^{-4} m/s.

Soakaways should be positioned a minimum of 5m from any proposed structure.

The results of the infiltration testing are presented in Appendix F.

9 Contamination Assessment

9.1 Tier 1 Generic Quantitative Risk Assessment - Soil Risks to Humans

9.1.1 General

The redevelopment is new House Waste Recycling Centre (HWRC), therefore the analytical data has initially been compared against the relevant available guidelines for commercial end-use to identify chemicals of potential concern.

The results have been used for subsequent comparison with:

- Cl:AIRE/EIC/AGS Soil Generic Assessment Criteria for Human Health Risk assessment, January 2010 and
- The LQM/CIEH S4ULs for Human Health Risk Assessment. Ref: S4UL3269, released January 2015, Land Quality Press, Nottingham and
- EA Science Report SC050021.

9.1.2 Metals

The results of the chemical analysis for heavy metal concentrations within the soil samples are summarised in Table 9.1:

Table 9.1 Values for Metals in Soils

Determinant	GAC	Concentration Range		No. samples tested	No. samples exceed GAC
		Min	Max		
Arsenic	640	11	29	10	0
Cadmium	8600	<0.1	0.1	10	0
Chromium (VI)	33	<1	<0.15	4	0
Chromium (total)	8400	26	39	10	0
Copper	69000	24	47	10	0
Lead	2330	18	180	10	0
Mercury	3600	<0.05	<0.05	10	0
Nickel	1700	29	68	10	0
Selenium	13000	<0.5	<0.5	10	0
Zinc	9000	21	29	10	0

None of the results exceeded the GAC values for commercial end-use.

9.1.3 Organics – Soil Organic Matter

SOM tests were undertaken on four samples. The resulting average value is 1.03% and so a conservative figure of 1% SOM has been adopted when selecting the Generic Assessment Criteria (GAC) screening values for organics in the following sections.

9.1.4 Organics – PAHs

The results of the chemical analysis for PAH within the soil samples are summarised in Table 9.2.

Table 9.2 Values for PAH in Soils

Determinant	GAC	Concentration Range		No. samples tested	No. samples exceed GAC
		Min	Max		
Acenaphthene	84000	<0.03	<0.03	4	0

Determinant	GAC	Concentration Range		No. samples tested	No. samples exceed GAC
		Min	Max		
Acenaphthylene	83000	<0.03	<0.03	4	0
Anthracene	520000	<0.03	<0.03	4	0
Benz(a)anthracene	170	<0.03	<0.03	4	0
Benzo(a)pyrene	76	<0.03	<0.03	4	0
Benzo(b)fluoranthene	44	<0.03	<0.03	4	0
Benzo(ghi)perylene	3900	<0.03	<0.03	4	0
Benzo(k)fluoranthene	1200	<0.03	<0.03	4	0
Chrysene	350	<0.03	<0.03	4	0
Dibenz(a,h)anthracene	3.5	<0.03	<0.03	4	0
Fluoranthene	23000	<0.03	<0.03	4	0
Fluorene	63000	<0.03	<0.03	4	0
Indeno(1,2,3-cd)pyrene	500	<0.03	<0.03	4	0
Naphthalene	190	<0.03	<0.03	4	0
Phenanthrene	22000	<0.03	<0.03	4	0
Pyrene	54000	<0.03	<0.03	4	0

None of the results exceed the GAC values for residential with plant uptake end-use.

9.1.5 Organics – TPH

The results of the chemical analysis for TPH concentrations within the soil samples are summarised in Table 9.3:

Table 9.3 Values for TPH in Soils

Determinant	GAC	Concentration Range		No. samples tested	No. samples exceed GAC
		Min	Max		
Aliphatic C5-C6	42	<3.4	<3.4	4	0
Aliphatic C6-C8	100	<0.01	<0.01	4	0
Aliphatic C8-C10	27	<0.01	<0.01	4	0
Aliphatic C10-C12	130	<10	<10	4	0
Aliphatic C12-C16	1100	<10	<10	4	0
Aliphatic C16-C21	32500	<1.2	<1.2	4	0
Aliphatic C21-C35	32500	<1.5	<1.5	4	0
Aliphatic C35-C40	65000	<3.4	<3.4	4	0
Aromatic C5-C7	70	<1.4	<1.4	4	0
Aromatic C7-C8	130	<0.01	<0.01	4	0
Aromatic C8-C10	34	<0.01	<0.01	4	0
Aromatic C10-C12	74	<0.03	<0.03	4	0
Aromatic C12-C16	140	<10	<10	4	0
Aromatic C16-C21	260	<0.5	<0.5	4	0
Aromatic C21-C35	1100	<0.6	<0.6	4	0
Aromatic C35-C44	1100	<1.4	<1.4	4	0

None of the results exceeded the GAC values for commercial end-use.

9.2 Summary of Risks to Human Health

No elevated concentrations were recorded and therefore the soils tested are not considered to present a risk to Human Health.

9.3 Risks to Water Resources

No sensory evidence of significant soil contamination was noted during the investigation. The results of the chemical analysis confirm this visual assessment and consequently the ground conditions present at the site are unlikely to pose a significant risk to controlled waters.

10 Ground Gas Assessment

10.1 Radon

The Groundsure report states that the site is in an area where the estimated probability of being above the action level of 200Bqm^{-3} is between 1 and 3%. Therefore no radon protective measures are required in the construction of new buildings.

10.2 Landfill Gas

No current or historical landfills are known to exist within 250m of the site. No organic soils, evidence of buried biodegradable materials or other potential sources of ground gas were identified.

Consequently, the risks to end users from permeant ground gases at the site is considered to be very low and no further assessment is considered necessary.

11 Conceptual Model and Risk Assessment

11.1 Risk Assessment

The findings of the site investigation have been used to revise the conceptual model for the site, thus permitting assessment of potential risk associated with the condition of the land and the requirement, or otherwise, for further actions. The process adopted in follows the LCRM guidance published by the Environment Agency (2021), with the assessment of risk and consequence adopting the nomenclature given in CIRIA C552.

Table 11.1 Risk Classification System (after CIRIA 552)

Source(s)	Possible Pathway(s)	Receptor(s)	Probability	Consequence	Risk Level	Comment
No elevated levels of potential contaminants recorded.	Ingestion, inhalation or direct dermal contact.	End users/ Site preparation workers.	Unlikely	Medium	Very low	No elevated levels of potential contaminants recorded.
	Migration of leachate through unsaturated zone.	Groundwater and/or surface waters.	Unlikely	Mild	Very low	
Ground gas from natural soils.	Inhalation.	End users/ Site preparation workers.	Unlikely	Severe	Very low	No sources identified.
Radon.	Accumulation in buildings and inhalation.	End users.	Unlikely	Medium	Very low	No protection required

The risk to various receptors has been classed as very low. Therefore, no specific remedial measures in respect of groundworks or management of soil contamination are considered necessary.

12 Material Reuse and Waste

Clean and natural soils may be re-used on site without any materials management plan (MMP).

The CL:AIRE Definition of Waste Code of Practice states the where soils are *“uncontaminated soil & other naturally occurring material excavated in the course of construction activities where it is certain that the material will be used for the purposes of construction in its natural state on the site from which it was excavated”* then there is no requirement for a formal materials management plan (MMP) registered with CL:AIRE and signed off by a Qualified Person (QP).

Based on the investigation undertaken the soils sampled do not pose a potential risk to human or environmental receptors and would be considered to be clean and suitable for re-use on site without a formal MMP.

12.1 Waste Assessment

To assess what category of landfill may be able to receive the soils, should they be disposed of to landfill, a single Waste Acceptance Testing was undertaken. This indicated the soil to be classed as inert. It is therefore likely that a landfill licenced to receive inert waste will be permitted to accept surplus soils.

It is recommended that prior to offsite disposal or recovery of any waste soils; the receiving licensed treatment/landfill facility should be sent copies of all relevant chemical analysis, plus exploratory hole logs showing the engineering descriptions of the soils to which the sample depths relate. This will allow the facility to access the waste independently: as receiver of the waste they have a duty to ensure compliance with their site-specific licence conditions and must satisfy themselves that they can legally accept the waste. Demonstrating the provenance of the waste, in this case a greenfield site, will aid that determination.

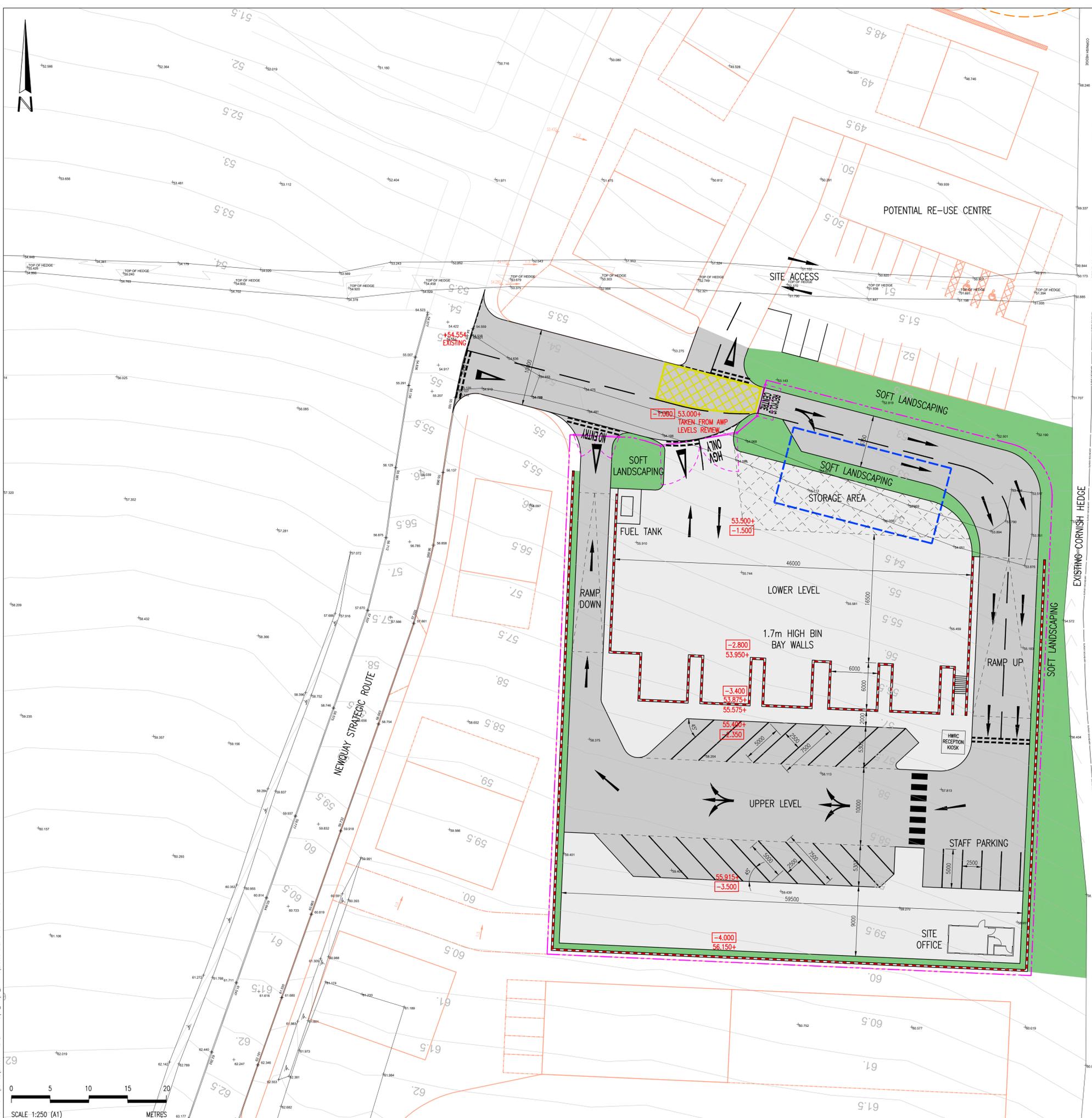
A waste transfer note (WTN) is a document that must accompany any transfer of waste between different holders. The purpose of a WTN is to allow other people who handle your waste to know what they are dealing with so that they can manage it safely and properly. A WTN must be created for each load of waste that leaves the site and must contain enough information about the waste to enable anyone coming into contact with it to handle it safely, and either dispose of it or allow it to be recovered within the law. If insufficient information is given on the WTN the responsible party may liable to be prosecuted.

Records of all waste transferred or received must keep for at least two years.

Appendices

- A Proposed Development Plan**
- B Historic Maps**
- C Enviro Geo Insight Report**
- D Exploratory Hole Plan**
- E Exploratory Hole Logs**
- F Infiltration Test Results**
- G Geotechnical Test Certificates**
- H Chemical Test Certificates**

A Proposed Development Plan



KEY:

- CONCRETE
- TARMAC
- SOFT LANDSCAPING
- DIRECTION OF TRAFFIC
- PALISADE FENCE
- GATES
- RETAINING WALL
- INFILTRATION TANK (APPROX)
- 55.915+ - PROPOSED LEVELS (APPROX)
- 4.700 - DEPTH BELOW EXISTING GROUND LEVEL (APPROX)
- AWP MASTERPLAN

THIS DRAWING IS FOR DISCUSSION PURPOSES ONLY AND SUBJECT TO DESIGN DEVELOPMENT

CDM RESIDUAL RISKS

The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.

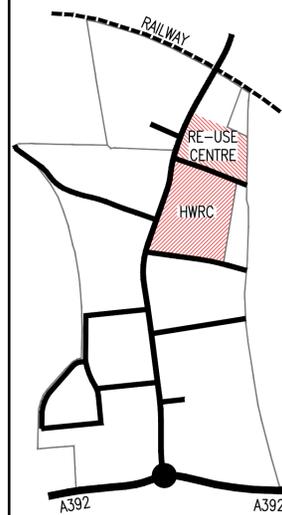
Risks are not considered significant.

- Relevant data is included in the Pre-Construction Information Pack.

Signed: .. Date: ..

NOTES:

- DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.
- CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS, SPECIFICATIONS AND REPORTS.
- TOPOGRAPHICAL SURVEY INFORMATION SHOWN TAKEN FROM SCOPE SURVEY AND ENGINEERING DRAWING REF: 0227-H.TOPO 01 REV A DATED 14/04/23. CLARKEBOND TAKE NO RESPONSIBILITY FOR ITS CONTENT OR ACCURACY.
- DEVELOPMENT MASTERPLAN INFORMATION SHOWN TAKEN FROM AWP DRAWING REF: 0216-PRL-10001 REV A DATED 13/03/23. CLARKEBOND TAKE NO RESPONSIBILITY FOR ITS CONTENT OR ACCURACY.
- ALL LEVELS SHOWN ARE TO ORDNANCE DATUM.



Revisions

Rev	Detail	By	CHK	Date
P02	LAYOUT UPDATED TO SUIT CLIENTS COMMENTS / REQUIREMENTS	NC	..	23.08.23
P01	FIRST ISSUE	NC	..	24.05.23

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PROPOSED HWRC AND RE-USE CENTRE NEWQUAY CORNWALL

LAYOUT OPTION B
45 DEGREE PARKING
7.5m LONG

INFORMATION

ClarkeBond Project No:	E05995	Status:	S2
Project:	NQ CLK XX	Level:	XX DR
Scale:	1:250 @ A1	Date:	MAY '23
Drawn:	NC	Checked:	MKR
Sheet Size:	A1	Revision:	P02

B Historic Maps

Site Details:

183275,60604

Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

Map Name: County Series

Map date: 1881

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1881
 Revised 1881
 Edition N/A
 Copyright N/A
 Levelled N/A

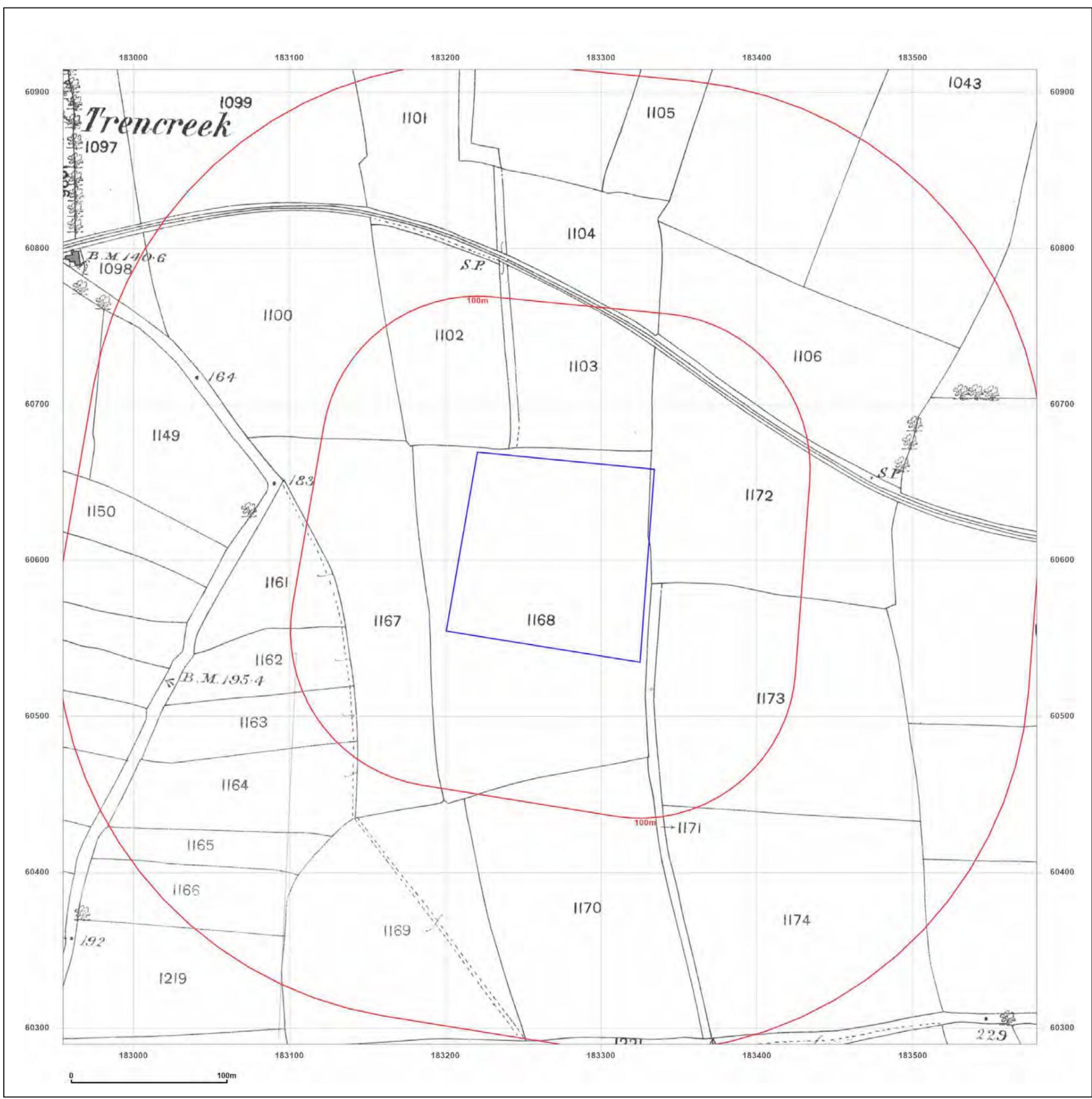


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Production date: 08 March 2024

Map legend available at:
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Site Details:

183275,60604

Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

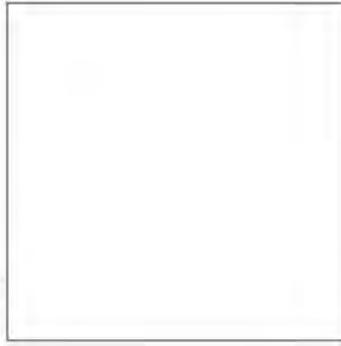
Map Name: County Series

Map date: 1907

Scale: 1:2,500

Printed at: 1:2,500





Surveyed 1907
 Revised 1907
 Edition N/A
 Copyright N/A
 Levelled N/A

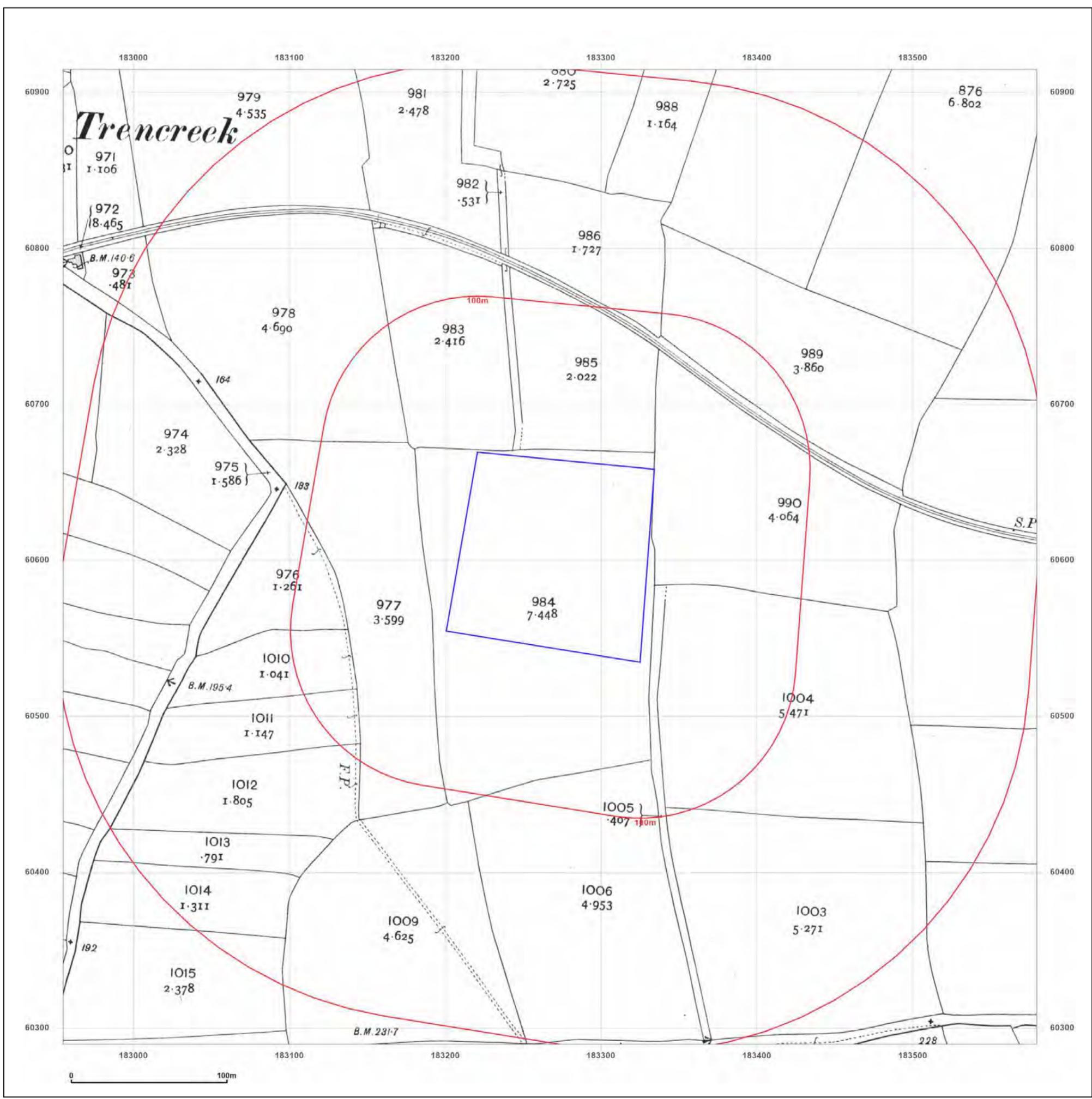


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Production date: 08 March 2024

Map legend available at:
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Site Details:

183275,60604

Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

Map Name: County Series

Map date: 1933

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1933
 Revised 1933
 Edition N/A
 Copyright N/A
 Levelled N/A

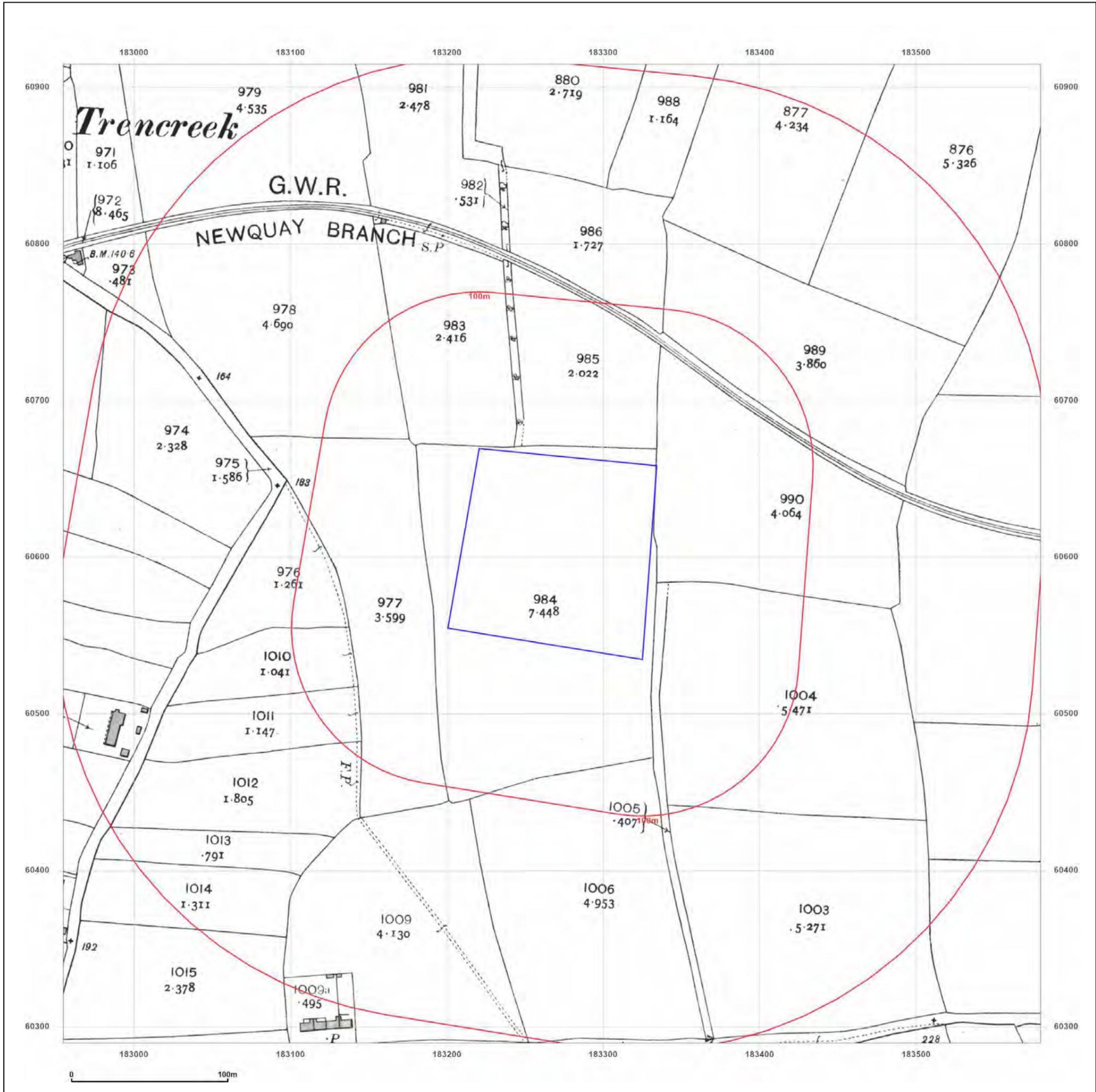


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Site Details:

183275,60604

Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

Map Name: National Grid

Map date: 1965

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1965
 Revised 1965
 Edition N/A
 Copyright 1967
 Levelled 1952

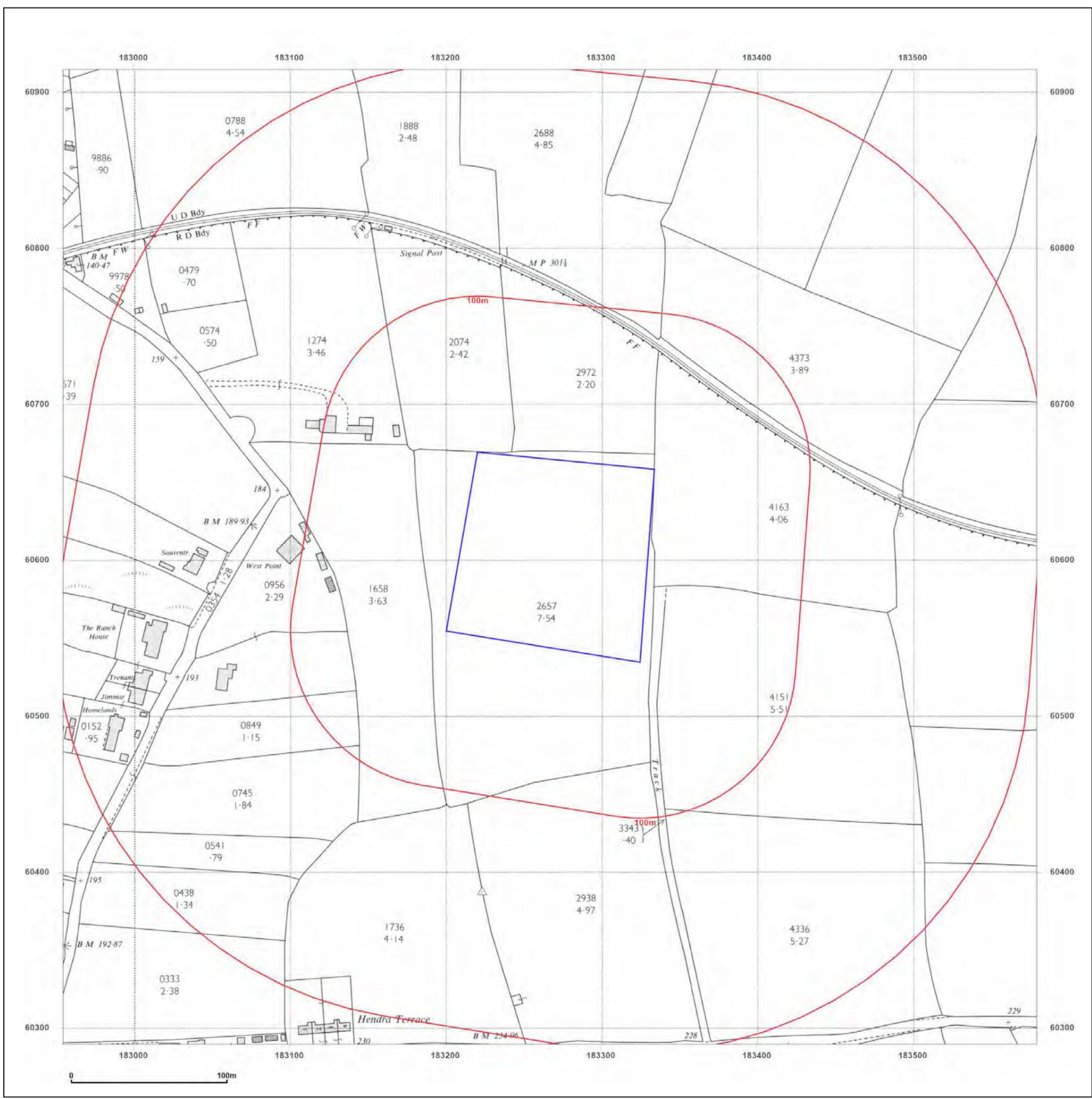


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Site Details:

183275,60604

Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

Map Name: National Grid

Map date: 1979-1980

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1979 Revised 1979 Edition N/A Copyright 1981 Levelled 1952	Surveyed N/A Revised N/A Edition N/A Copyright N/A Levelled 1980
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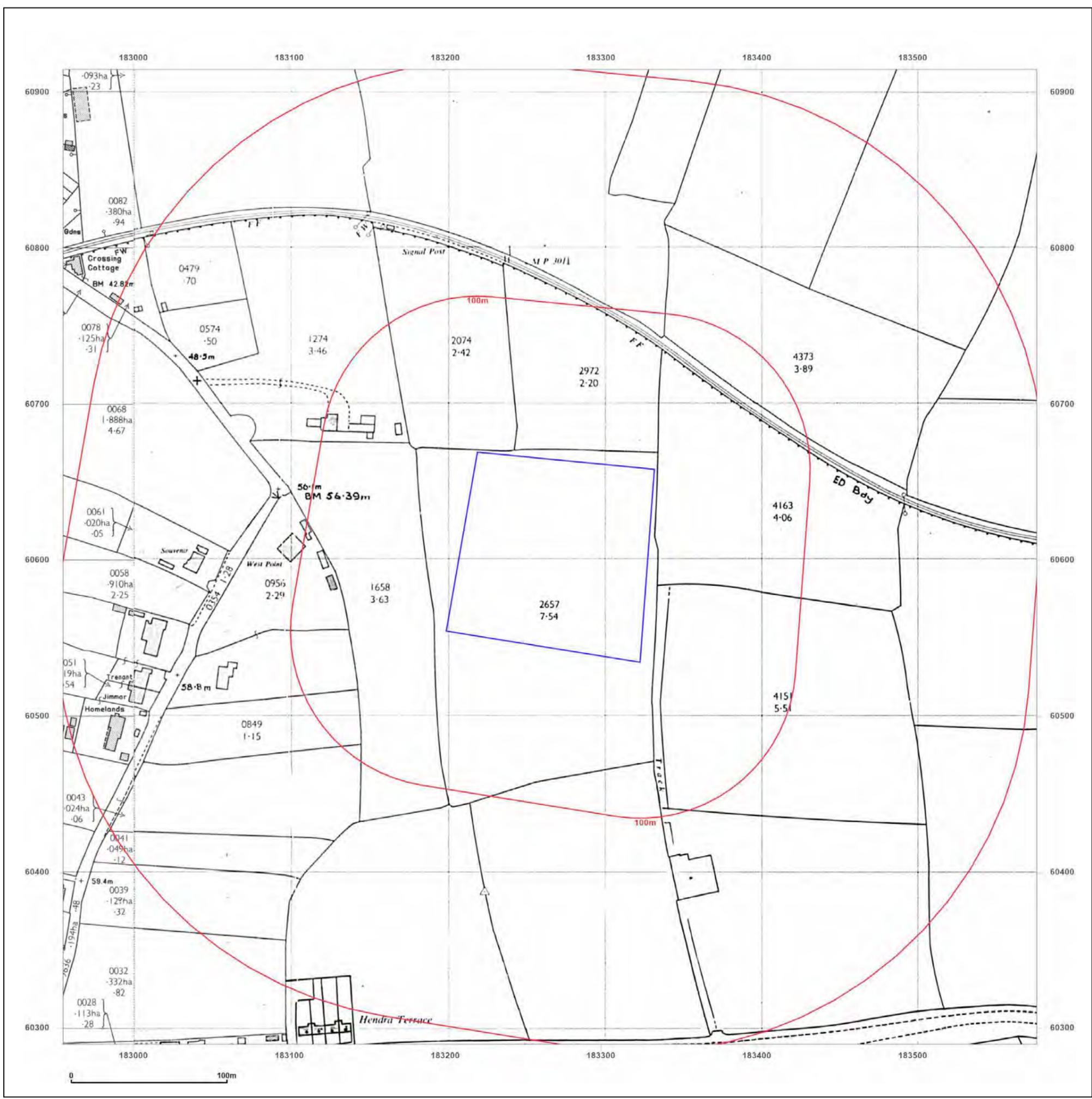


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Site Details:

183275,60604

Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

Map Name: National Grid

Map date: 1991

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1991
 Revised 1991
 Edition N/A
 Copyright 1991
 Levelled N/A

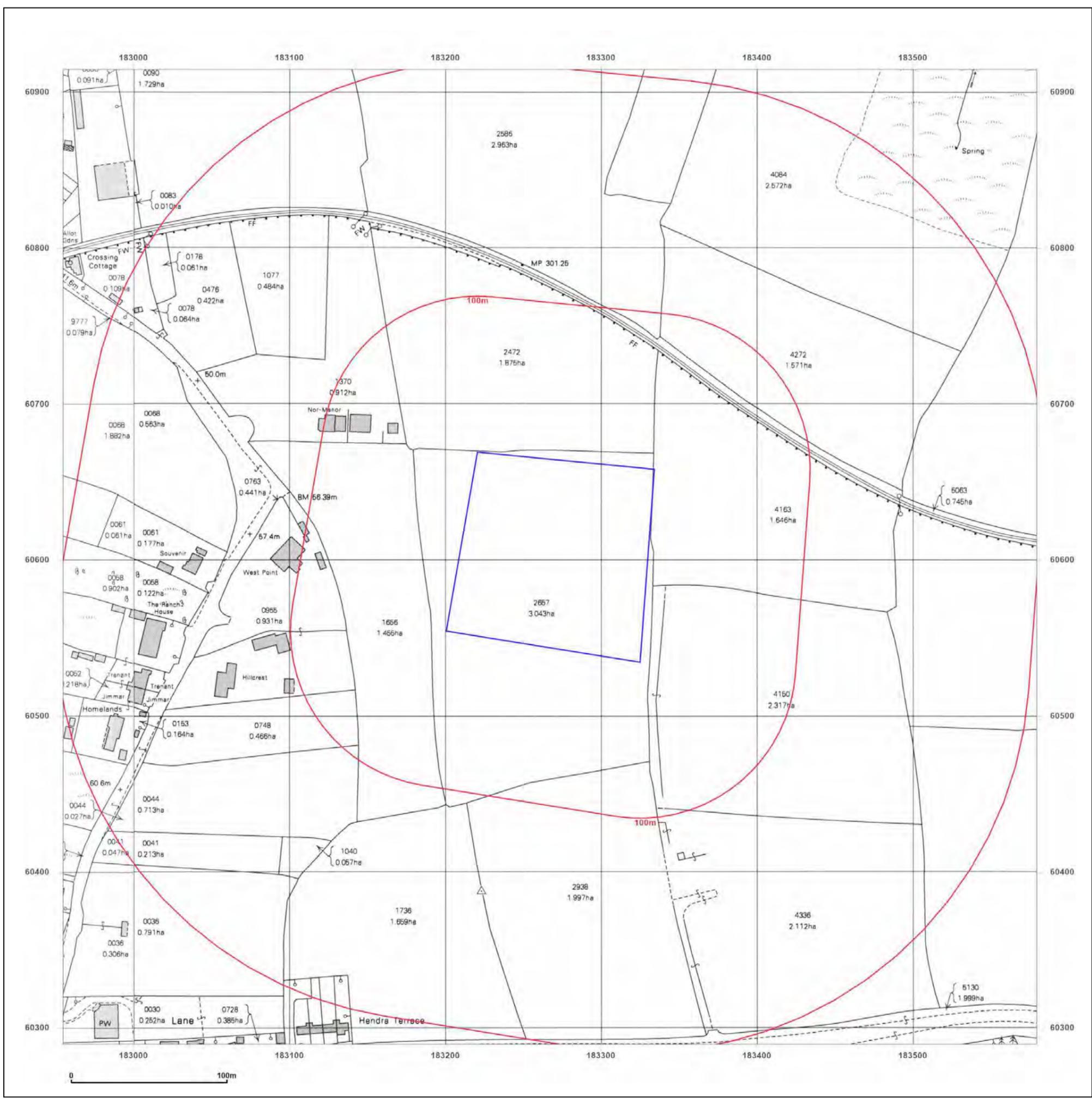


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Site Details:

183275,60604

Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

Map Name: National Grid

Map date: 1993-1995

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1991
 Revised 1991
 Edition N/A
 Copyright 1993
 Levelled N/A

Surveyed N/A
 Revised N/A
 Edition N/A
 Copyright 1995
 Levelled N/A

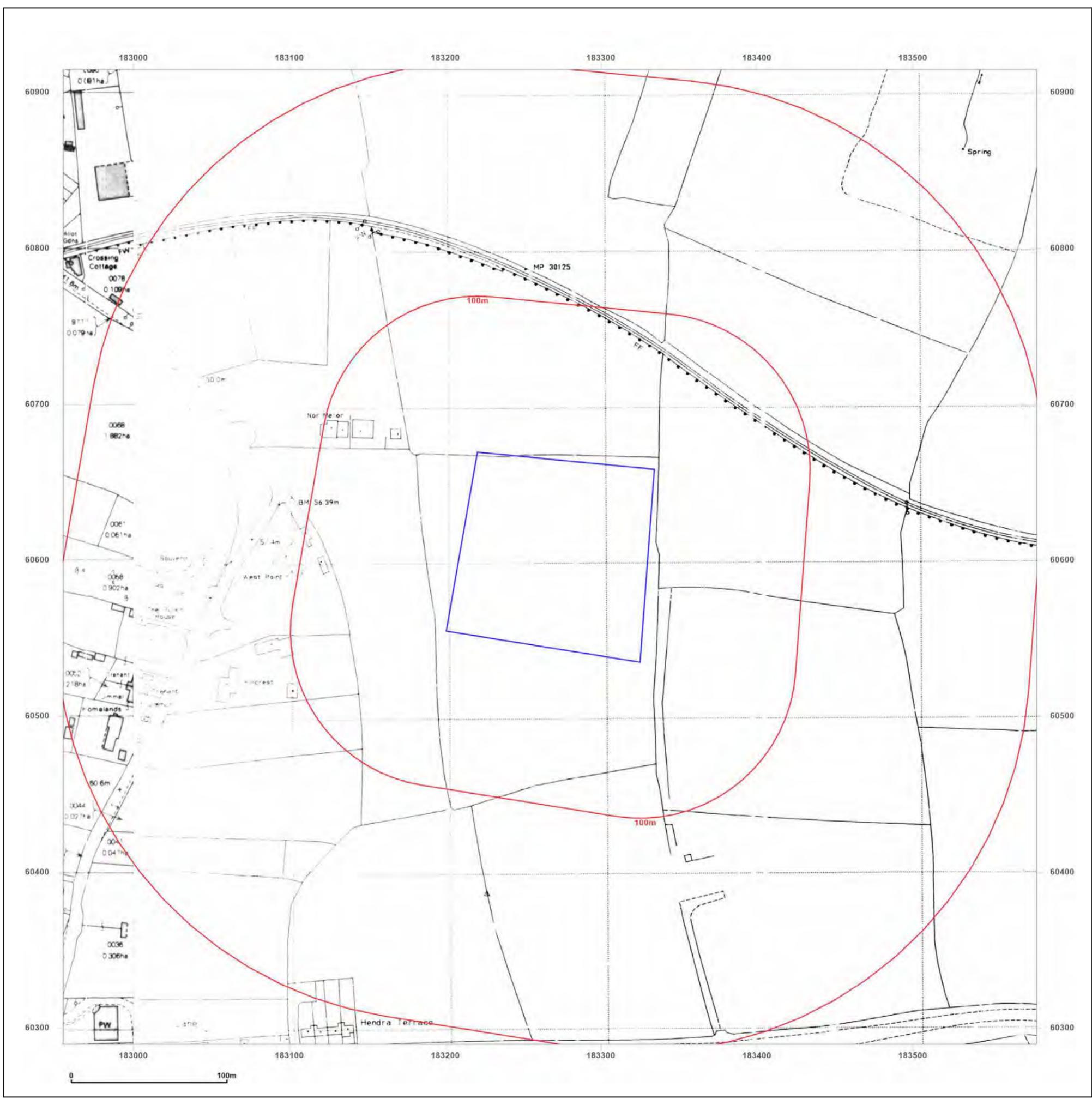


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Site Details:

183275,60604

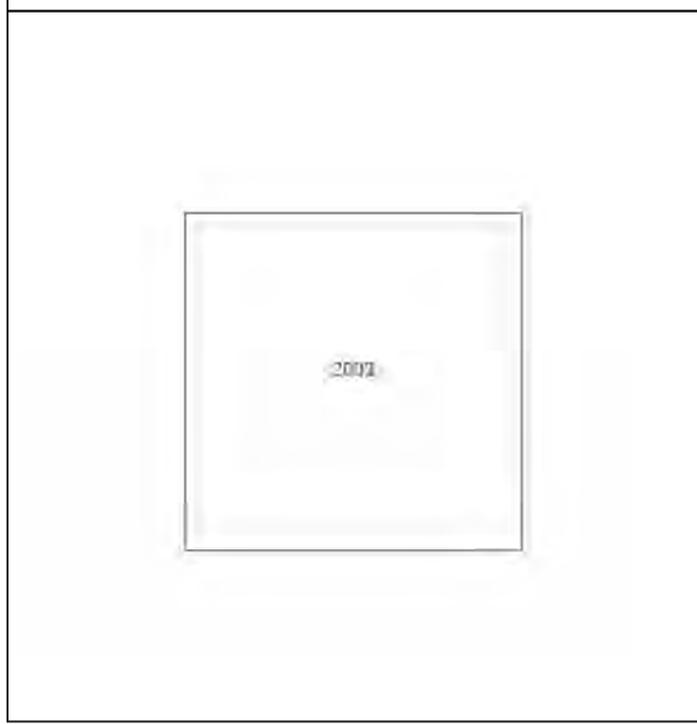
Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250

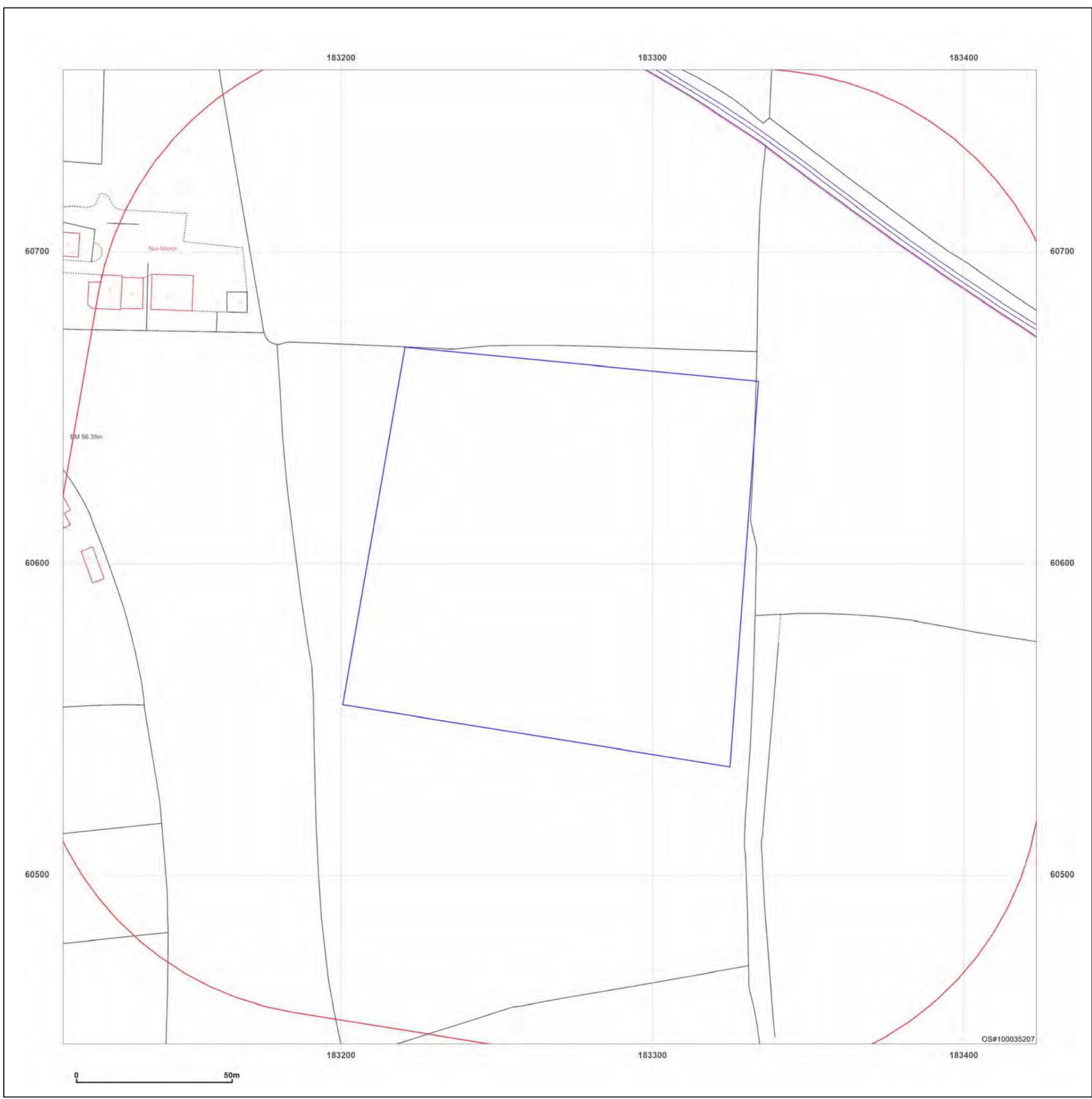


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Site Details:

183275,60604

Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

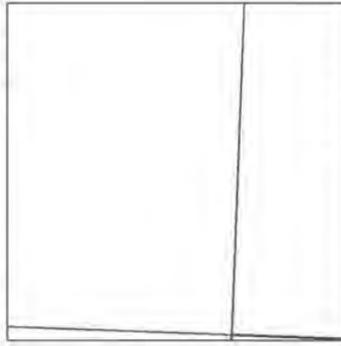
Map Name: County Series

Map date: 1888

Scale: 1:10,560

Printed at: 1:10,560



<p>Surveyed 1880 Revised N/A Edition 1888 Copyright N/A Levelled N/A</p>		<p>Surveyed 1880 Revised N/A Edition 1888 Copyright N/A Levelled N/A</p>
<p>Surveyed 1880 Revised N/A Edition 1888 Copyright N/A Levelled N/A</p>		<p>Surveyed 1880 Revised N/A Edition 1888 Copyright N/A Levelled N/A</p>

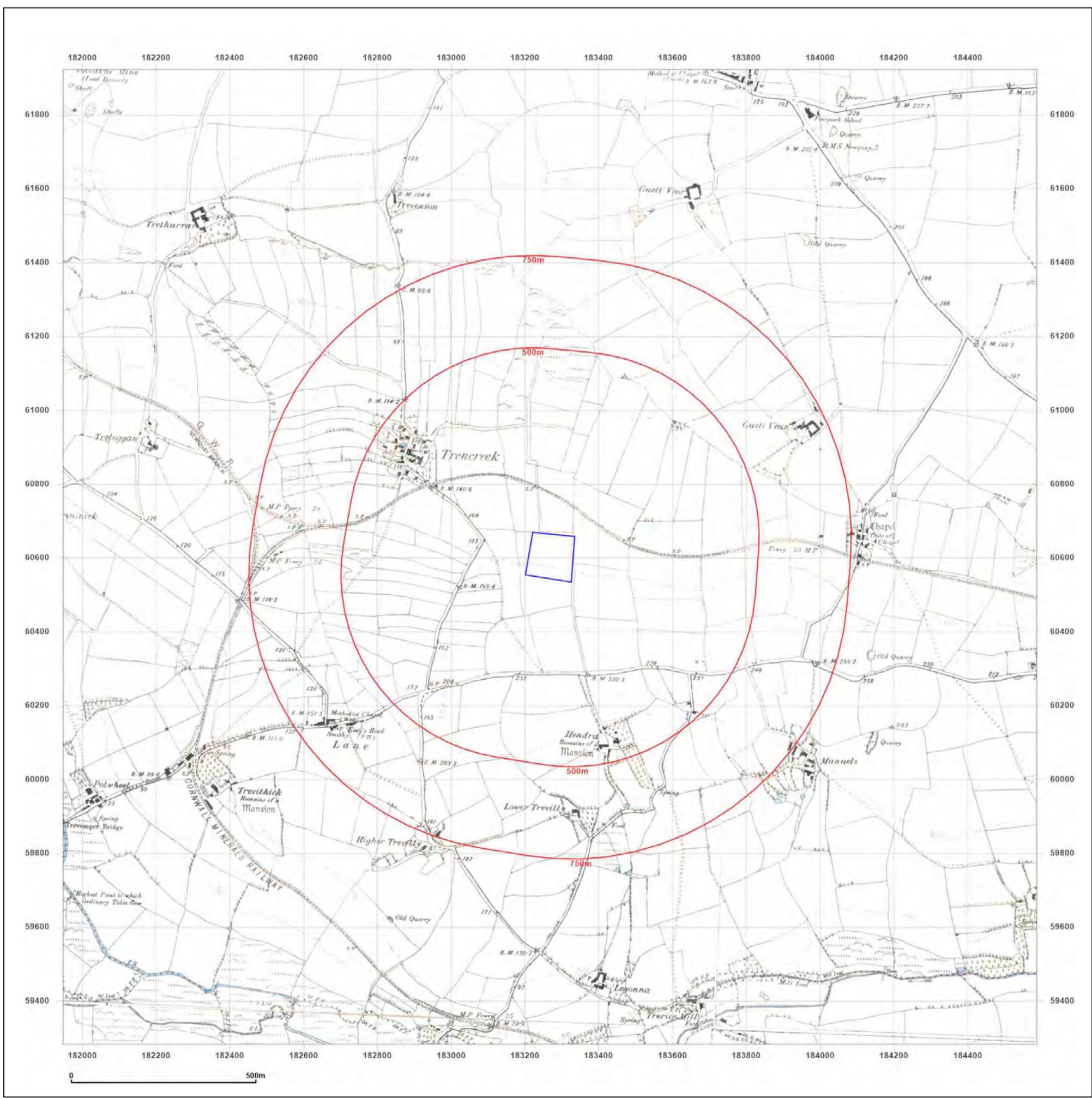


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Production date: 08 March 2024

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Site Details:

183275,60604

Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

Map Name: County Series

Map date: 1906

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1879
 Revised 1906
 Edition N/A
 Copyright N/A
 Levelled N/A

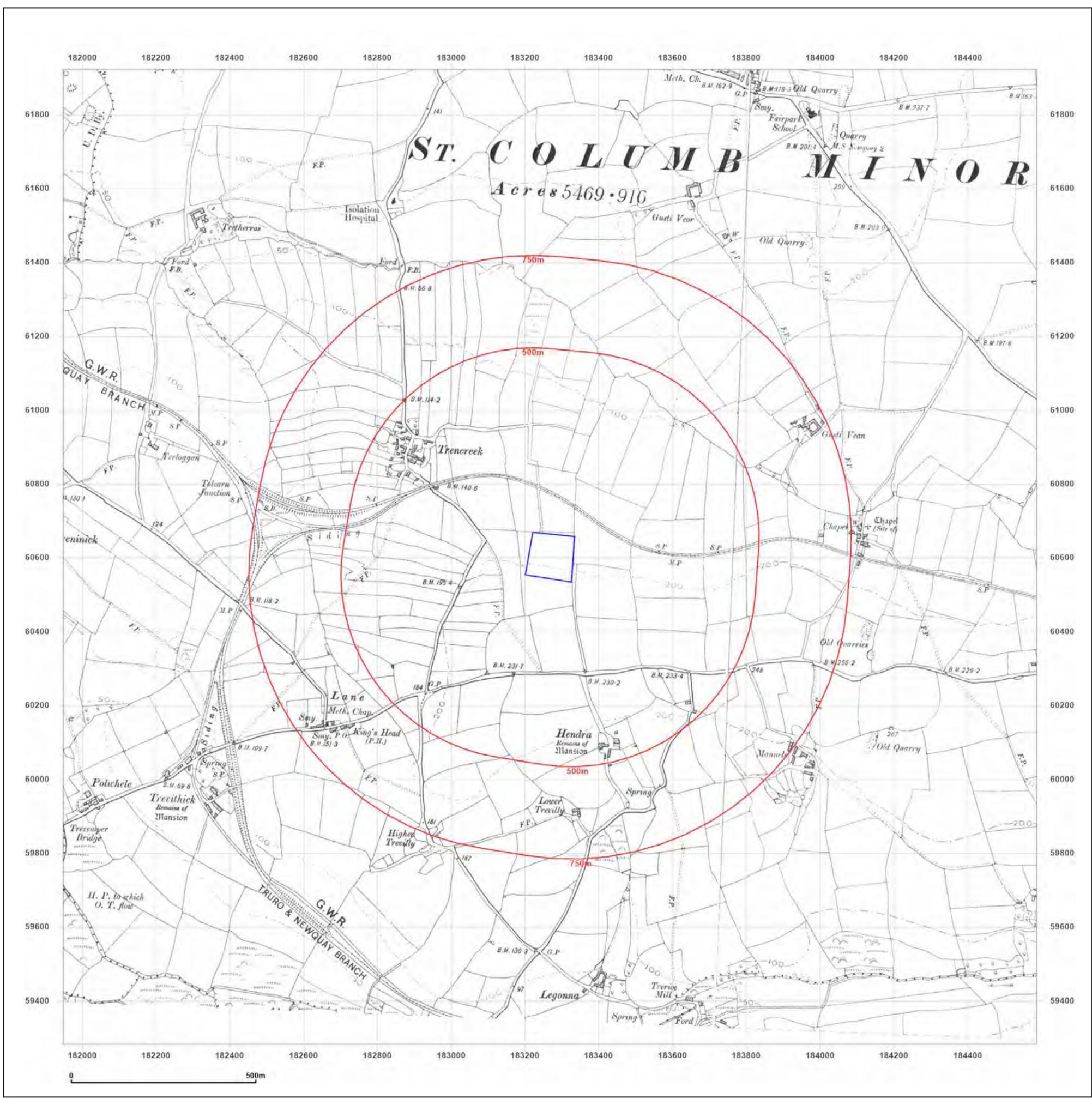


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Site Details:

183275,60604

Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

Map Name: County Series

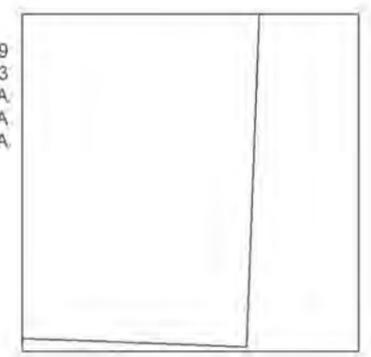
Map date: 1933

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1879
 Revised 1933
 Edition N/A
 Copyright N/A
 Levelled N/A

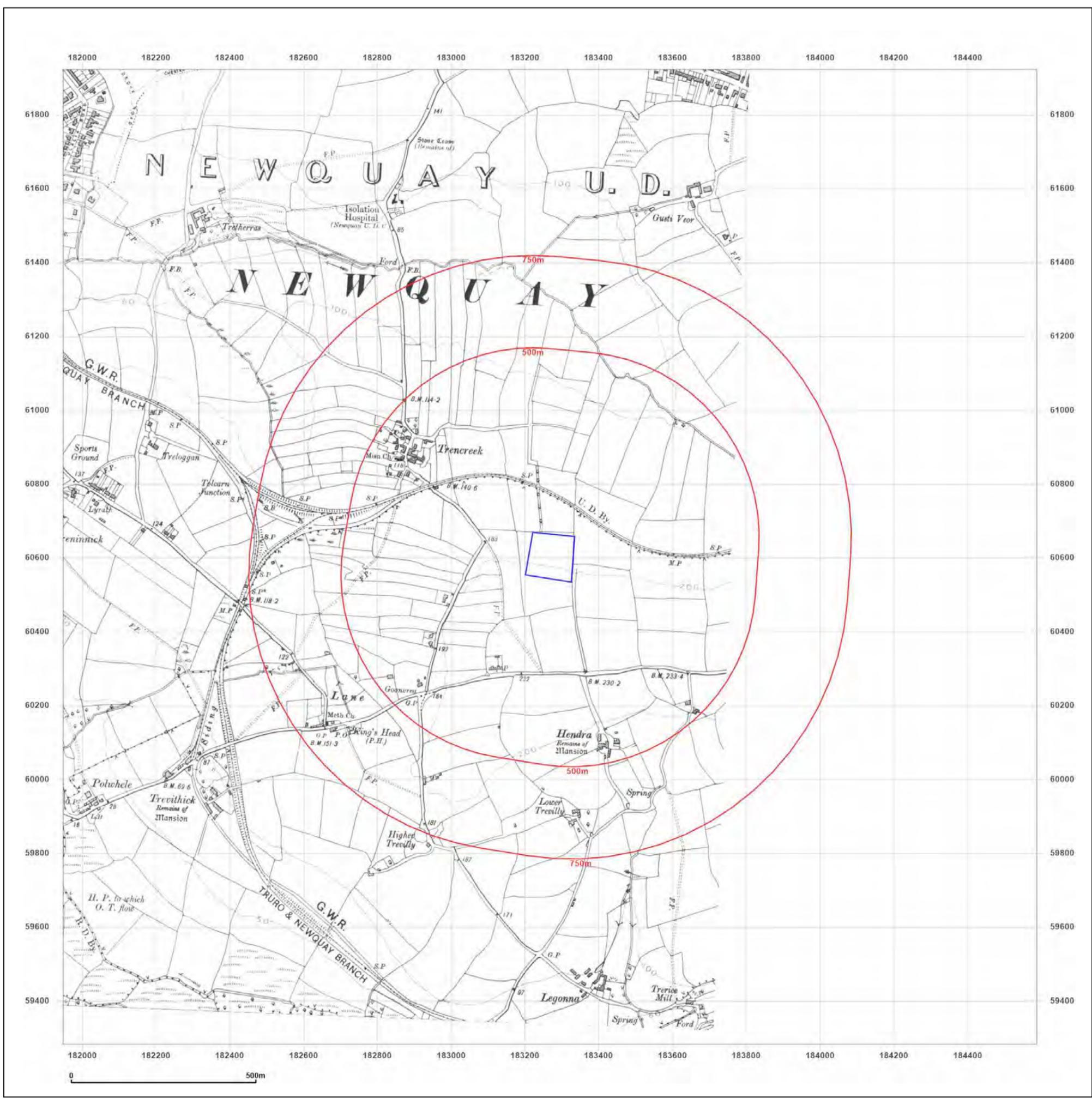


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Site Details:

183275,60604

Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

Map Name: County Series

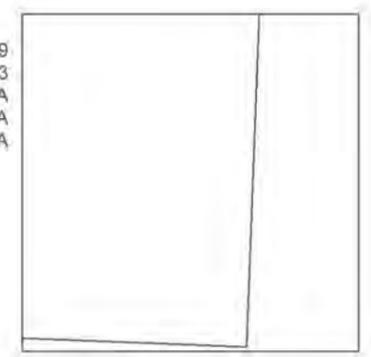
Map date: 1933

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1879
 Revised 1933
 Edition N/A
 Copyright N/A
 Levelled N/A

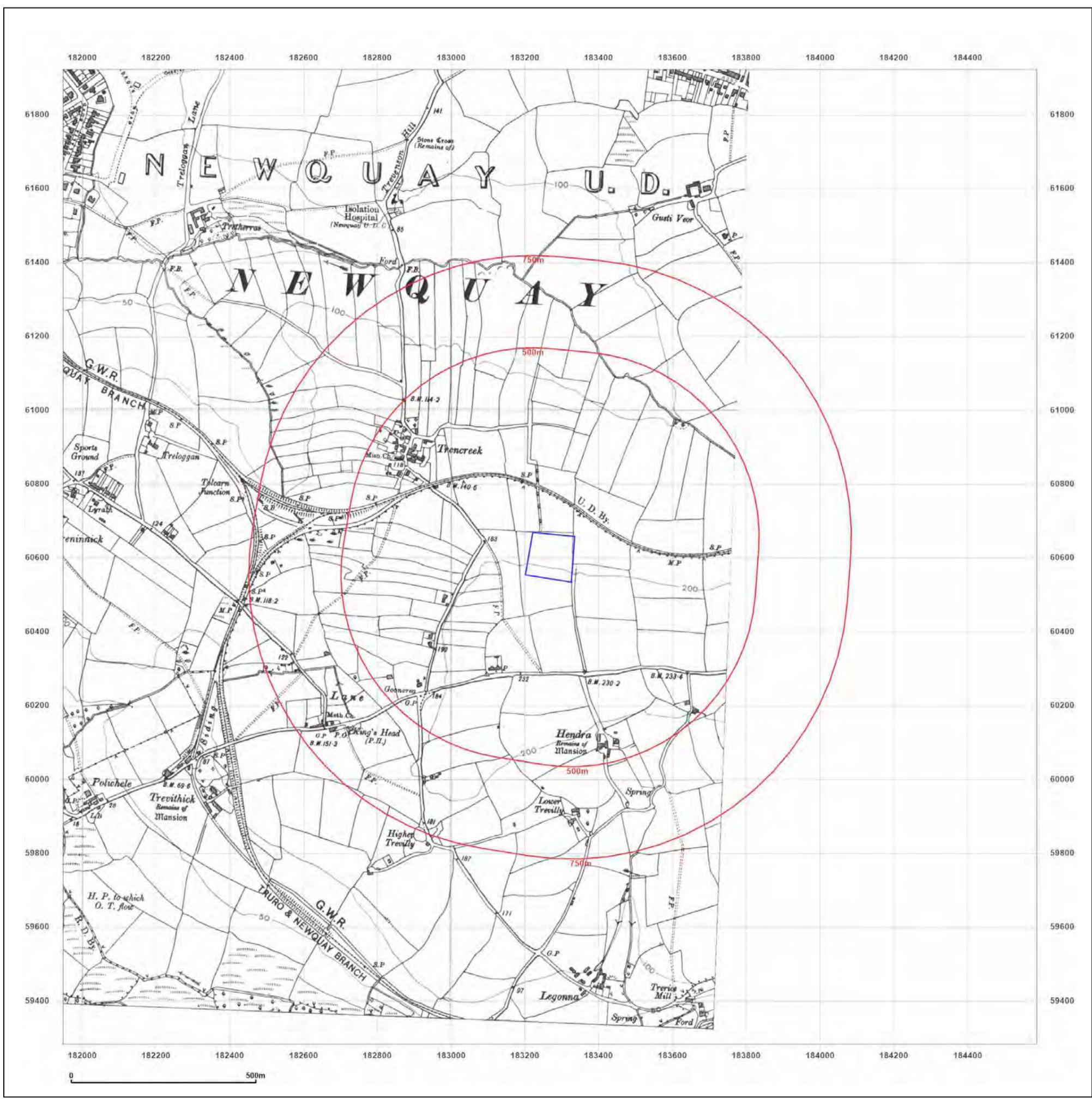


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Site Details:

183275,60604

Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

Map Name: County Series

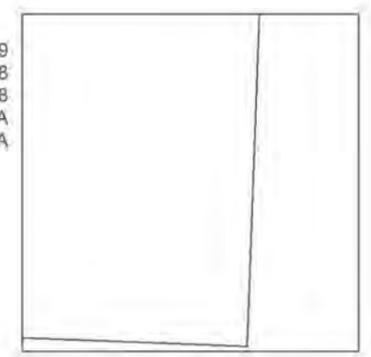
Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1879
 Revised 1938
 Edition 1938
 Copyright N/A
 Levelled N/A

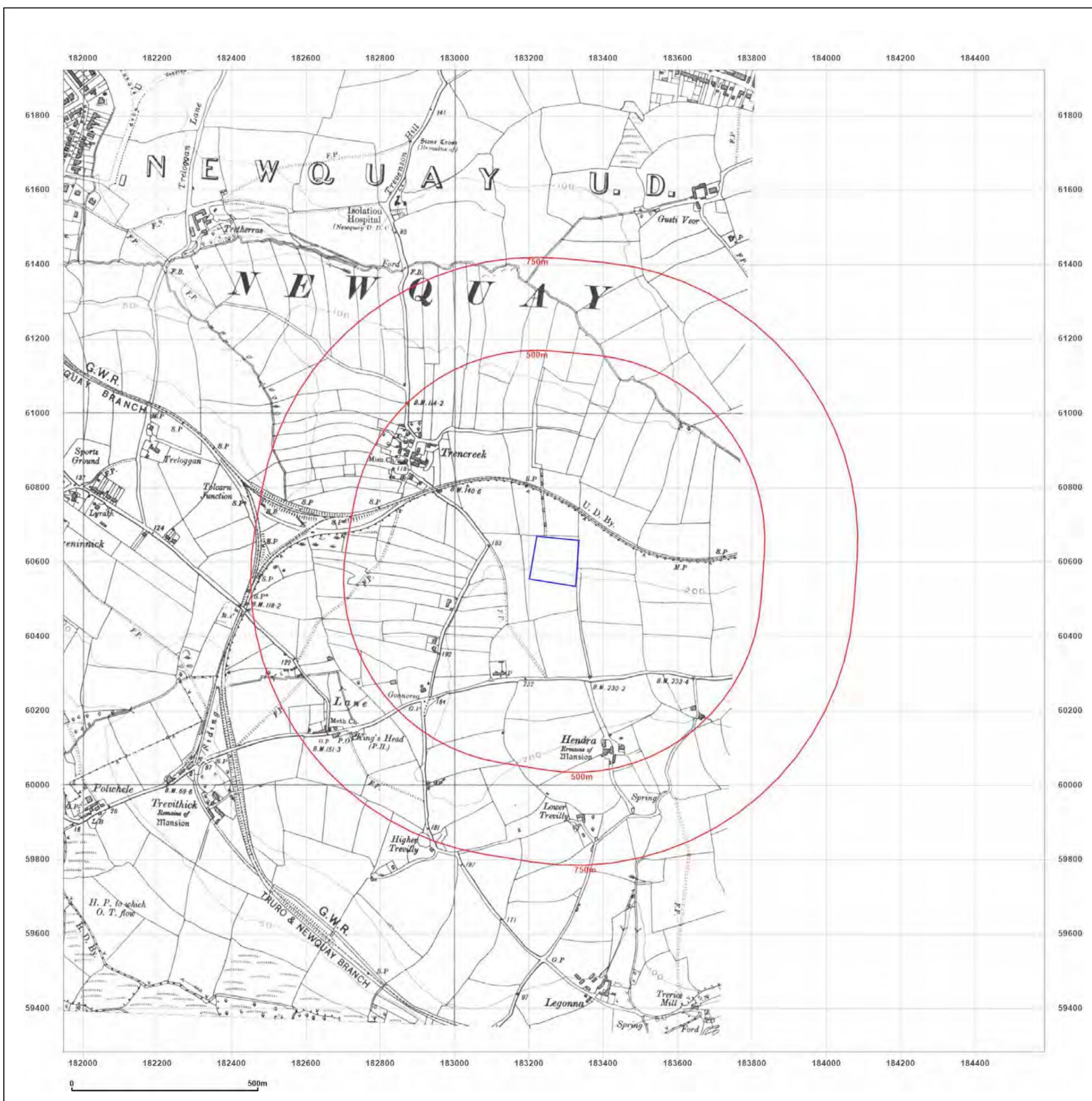


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Site Details:

183275,60604

Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

Map Name: National Grid

Map date: 1983

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1981
 Revised 1981
 Edition N/A
 Copyright 1983
 Levelled N/A

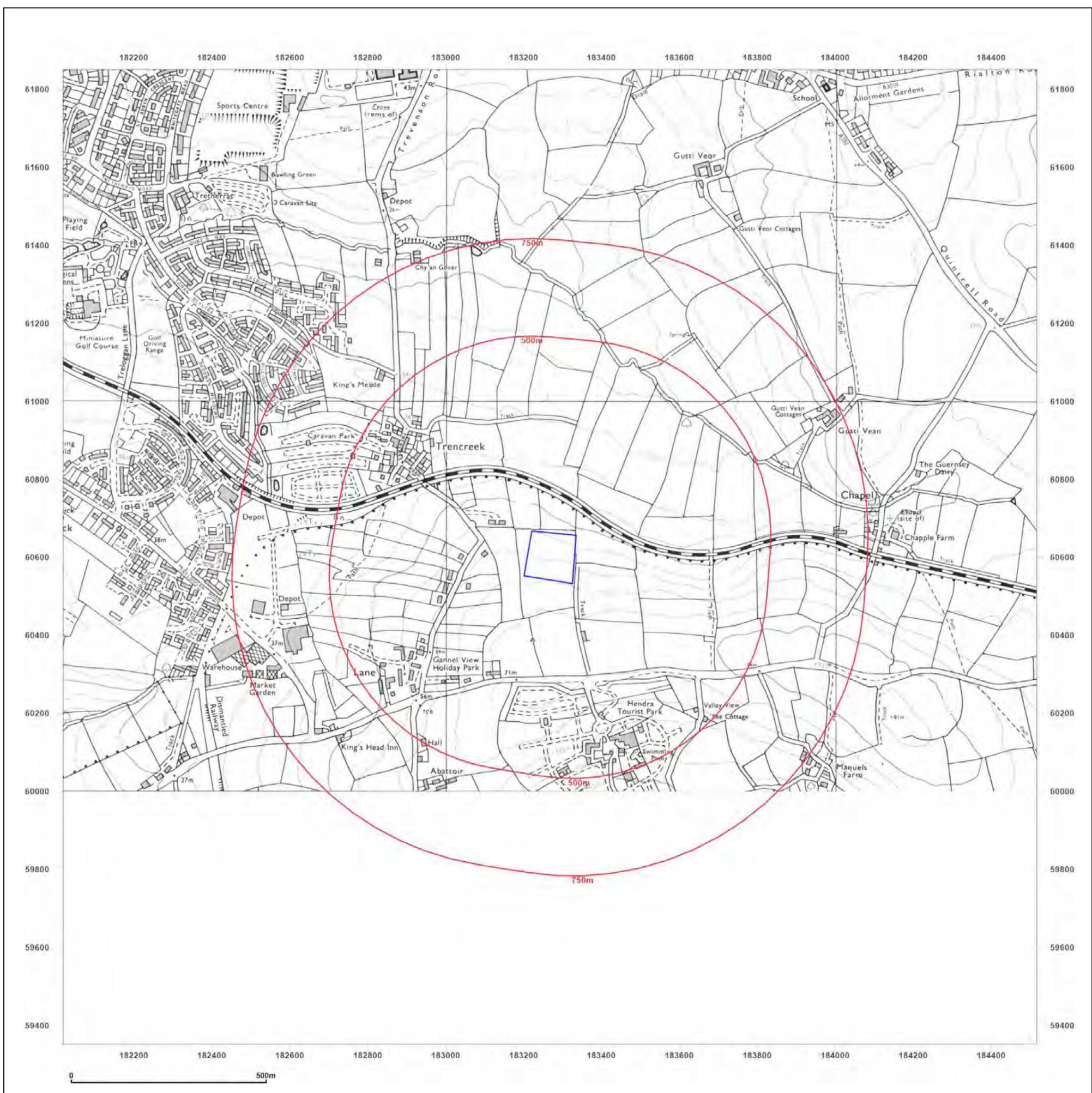


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Production date: 08 March 2024

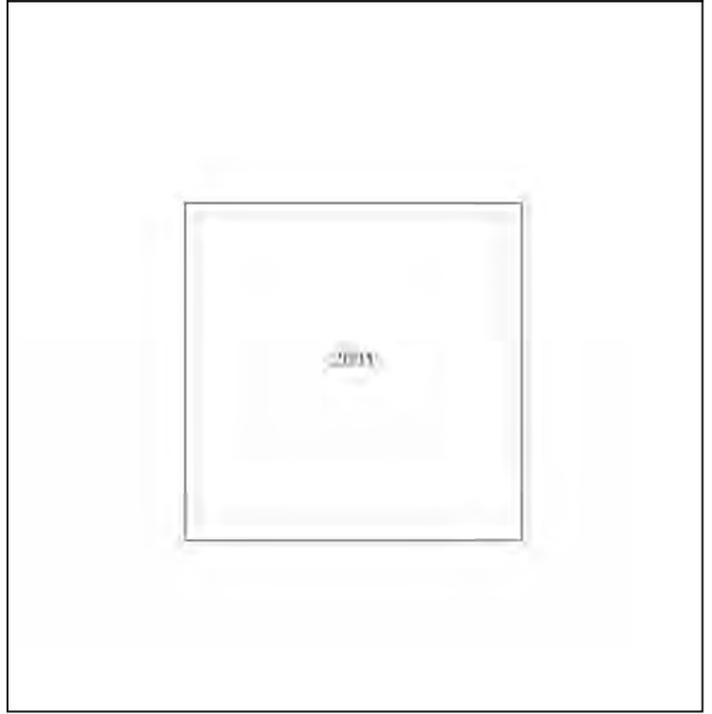
Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:
183275,60604

Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

Map Name: National Grid
Map date: 2001
Scale: 1:10,000
Printed at: 1:10,000



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Production date: 08 March 2024

Map legend available at:
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0 500m

Site Details:

183275,60604

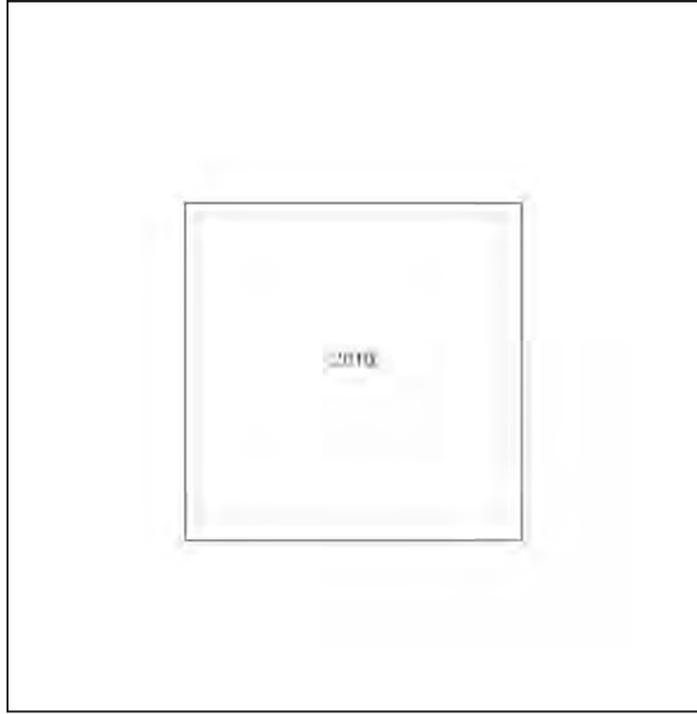
Client Ref: E06494 - P11253
Report Ref: GS-JWK-R9Q-3RC-SUY
Grid Ref: 183267, 60602

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000

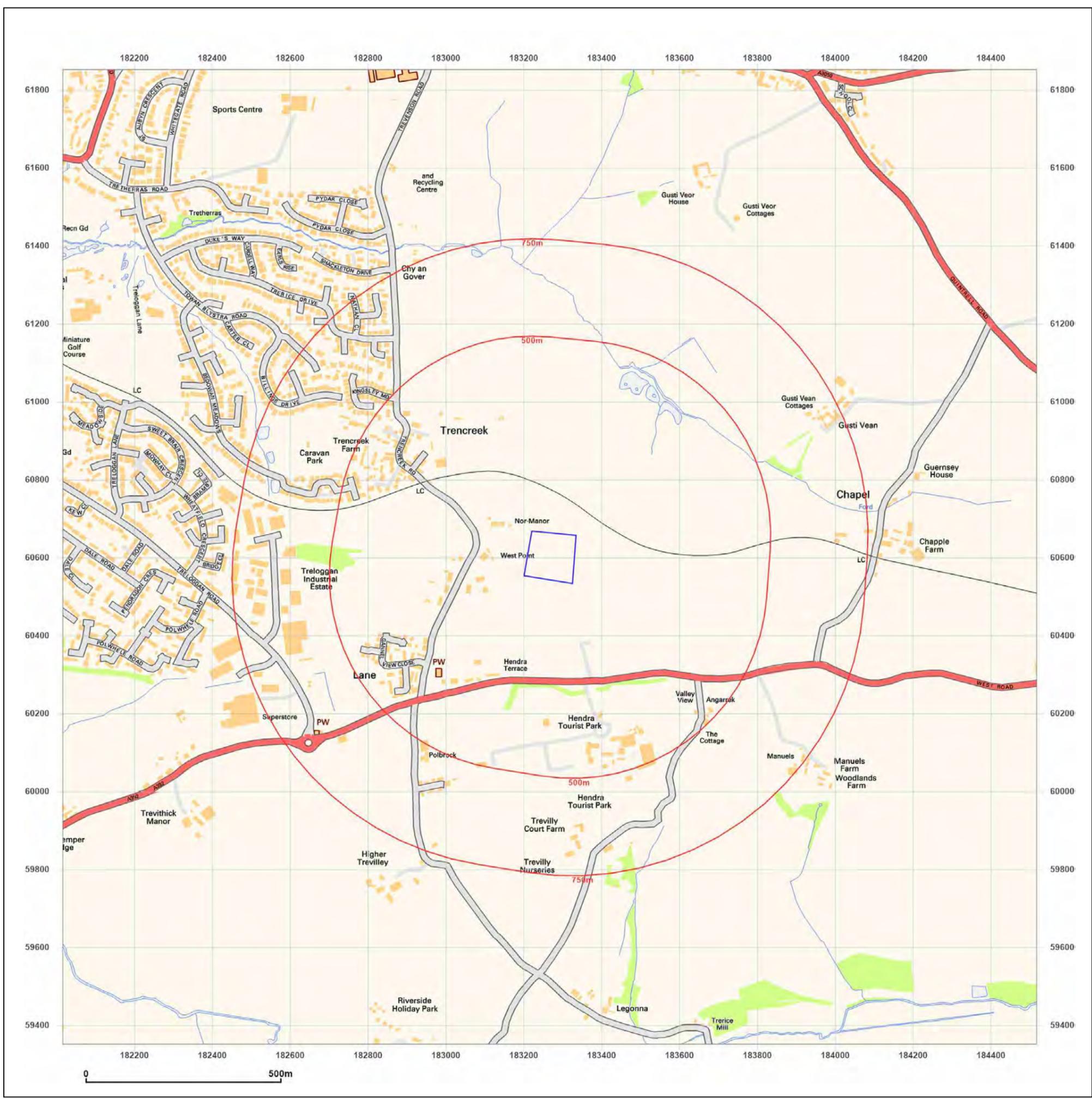


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C Enviro Geo Insight Report

183275,60604

Order Details

Date: 08/03/2024
Your ref: E06494 - P11253
Our Ref: GS-CX3-SEB-DE3-K9B

Site Details

Location: 183270 060603
Area: 1.44 ha
Authority: [Cornwall Council \(Unitary\)](#) ↗



Summary of findings

[p. 2 >](#)

Aerial image

[p. 9 >](#)

OS MasterMap site plan

[p.14 >](#)

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Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15	1.1	Historical industrial land uses	0	0	0	0	-
16	1.2	Historical tanks	0	0	0	0	-
16 >	1.3 >	Historical energy features >	0	0	0	4	-
16	1.4	Historical petrol stations	0	0	0	0	-
17	1.5	Historical garages	0	0	0	0	-
17	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
18	2.1	Historical industrial land uses	0	0	0	0	-
19	2.2	Historical tanks	0	0	0	0	-
19 >	2.3 >	Historical energy features >	0	0	0	7	-
19	2.4	Historical petrol stations	0	0	0	0	-
20	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
21	3.1	Active or recent landfill	0	0	0	0	-
21	3.2	Historical landfill (BGS records)	0	0	0	0	-
22	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
22	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
22	3.5	Historical waste sites	0	0	0	0	-
22	3.6	Licensed waste sites	0	0	0	0	-
22 >	3.7 >	Waste exemptions >	2	0	6	8	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
25 >	4.1 >	Recent industrial land uses >	0	0	2	-	-
26 >	4.2 >	Current or recent petrol stations >	0	0	0	1	-
26	4.3	Electricity cables	0	0	0	0	-
26	4.4	Gas pipelines	0	0	0	0	-
26	4.5	Sites determined as Contaminated Land	0	0	0	0	-



26	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
27	4.7	Regulated explosive sites	0	0	0	0	-
27 >	4.8 >	<u>Hazardous substance storage/usage ></u>	0	0	0	1	-
27	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
27	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
28	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
28	4.12	Radioactive Substance Authorisations	0	0	0	0	-
28 >	4.13 >	<u>Licensed Discharges to controlled waters ></u>	0	0	0	1	-
28	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
29	4.15	Pollutant release to public sewer	0	0	0	0	-
29	4.16	List 1 Dangerous Substances	0	0	0	0	-
29	4.17	List 2 Dangerous Substances	0	0	0	0	-
29 >	4.18 >	<u>Pollution Incidents (EA/NRW) ></u>	0	0	0	3	-
30	4.19	Pollution inventory substances	0	0	0	0	-
30	4.20	Pollution inventory waste transfers	0	0	0	0	-
30	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
31	5.1	Superficial aquifer	None (within 500m)				
32 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
33 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
34	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
34	5.5	Groundwater vulnerability- local information	None (within 0m)				
35 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	4	12
39 >	5.7 >	<u>Surface water abstractions ></u>	0	0	0	0	7
41 >	5.8 >	<u>Potable abstractions ></u>	0	0	0	4	2
43 >	5.9 >	<u>Source Protection Zones ></u>	0	0	1	1	-
43	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
44 >	6.1 >	<u>Water Network (OS MasterMap) ></u>	0	0	2	-	-



45 >	6.2 >	Surface water features >	0	0	2	-	-
45 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
45	6.4	WFD Surface water bodies	0	0	0	-	-
46 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
47	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
47	7.2	Historical Flood Events	0	0	0	-	-
47	7.3	Flood Defences	0	0	0	-	-
48	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
48	7.5	Flood Storage Areas	0	0	0	-	-
49	7.6	Flood Zone 2	None (within 50m)				
49	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
50	8.1	Surface water flooding	Negligible (within 50m)				
Page	Section	Groundwater flooding >					
51 >	9.1 >	Groundwater flooding >	Negligible (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
52	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
53	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
53	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
53	10.4	Special Protection Areas (SPA)	0	0	0	0	0
53	10.5	National Nature Reserves (NNR)	0	0	0	0	0
54	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
54	10.7	Designated Ancient Woodland	0	0	0	0	0
54	10.8	Biosphere Reserves	0	0	0	0	0
54	10.9	Forest Parks	0	0	0	0	0
55 >	10.10 >	Marine Conservation Zones >	0	0	0	0	4
55	10.11	Green Belt	0	0	0	0	0
55	10.12	Proposed Ramsar sites	0	0	0	0	0



55	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
56	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
56	10.15	Nitrate Sensitive Areas	0	0	0	0	0
56	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
57 >	10.17 >	<u>SSSI Impact Risk Zones ></u>	1	-	-	-	-
58	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
59	11.1	World Heritage Sites	0	0	0	-	-
59	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
59	11.3	National Parks	0	0	0	-	-
59	11.4	Listed Buildings	0	0	0	-	-
60	11.5	Conservation Areas	0	0	0	-	-
60	11.6	Scheduled Ancient Monuments	0	0	0	-	-
60	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	<u>Agricultural designations ></u>	On site	0-50m	50-250m	250-500m	500-2000m
61 >	12.1 >	<u>Agricultural Land Classification ></u>	Grade 3 (within 250m)				
63	12.2	Open Access Land	0	0	0	-	-
63	12.3	Tree Felling Licences	0	0	0	-	-
63	12.4	Environmental Stewardship Schemes	0	0	0	-	-
63 >	12.5 >	<u>Countryside Stewardship Schemes ></u>	2	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
64	13.1	Priority Habitat Inventory	0	0	0	-	-
64	13.2	Habitat Networks	0	0	0	-	-
64	13.3	Open Mosaic Habitat	0	0	0	-	-
64	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	<u>Geology 1:10,000 scale ></u>	On site	0-50m	50-250m	250-500m	500-2000m
65 >	14.1 >	<u>10k Availability ></u>	Identified (within 500m)				
66	14.2	Artificial and made ground (10k)	0	0	0	0	-
67 >	14.3 >	<u>Superficial geology (10k) ></u>	0	0	0	1	-



68	14.4	Landslip (10k)	0	0	0	0	-
69 >	14.5 >	Bedrock geology (10k) >	1	0	0	0	-
70	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
71 >	15.1 >	50k Availability >	Identified (within 500m)				
72	15.2	Artificial and made ground (50k)	0	0	0	0	-
72	15.3	Artificial ground permeability (50k)	0	0	-	-	-
73 >	15.4 >	Superficial geology (50k) >	0	0	0	1	-
74	15.5	Superficial permeability (50k)	None (within 50m)				
74	15.6	Landslip (50k)	0	0	0	0	-
74	15.7	Landslip permeability (50k)	None (within 50m)				
75 >	15.8 >	Bedrock geology (50k) >	1	0	0	0	-
76 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
76	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
77	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence >					
78 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
79 >	17.2 >	Running sands >	Very low (within 50m)				
80 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
81 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
82 >	17.5 >	Landslides >	Low (within 50m)				
83 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
85	18.1	BritPits	0	0	0	0	-
86	18.2	Surface ground workings	0	0	0	-	-
86	18.3	Underground workings	0	0	0	0	0
86	18.4	Underground mining extents	0	0	0	0	-
86	18.5	Historical Mineral Planning Areas	0	0	0	0	-



86 >	18.6 >	Non-coal mining >	1	0	0	0	2
87	18.7	JPB mining areas	None (within 0m)				
87	18.8	The Coal Authority non-coal mining	0	0	0	0	-
88 >	18.9 >	Researched mining >	0	0	1	5	-
88	18.10	Mining record office plans	0	0	0	0	-
88	18.11	BGS mine plans	0	0	0	0	-
89	18.12	Coal mining	None (within 0m)				
89	18.13	Brine areas	None (within 0m)				
89	18.14	Gypsum areas	None (within 0m)				
89 >	18.15 >	Tin mining >	Identified (within 0m)				
89	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
90	19.1	Natural cavities	0	0	0	0	-
90	19.2	Mining cavities	0	0	0	0	0
90	19.3	Reported recent incidents	0	0	0	0	-
90	19.4	Historical incidents	0	0	0	0	-
91	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
92 >	20.1 >	Radon >	Between 1% and 3% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
94 >	21.1 >	BGS Estimated Background Soil Chemistry >	1	1	-	-	-
94	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
94	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects >	On site	0-50m	50-250m	250-500m	500-2000m
95	22.1	Underground railways (London)	0	0	0	-	-
95	22.2	Underground railways (Non-London)	0	0	0	-	-
96	22.3	Railway tunnels	0	0	0	-	-
96	22.4	Historical railway and tunnel features	0	0	0	-	-
96	22.5	Royal Mail tunnels	0	0	0	-	-



96	22.6	Historical railways	0	0	0	-	-
96 >	22.7 >	Railways >	0	0	2	-	-
97	22.8	Crossrail 1	0	0	0	0	-
97	22.9	Crossrail 2	0	0	0	0	-
97	22.10	HS2	0	0	0	0	-

Recent aerial photograph



Aerial photography, supplied by Getmapping PLC. © Copyright Getmapping PLC 2024. All Rights Reserved

Capture Date: 17/06/2022

Site Area: 1.44ha



Recent site history - 2019 aerial photograph



Capture Date: 22/06/2019

Site Area: 1.44ha



Recent site history - 2013 aerial photograph



Capture Date: 08/06/2013

Site Area: 1.44ha



Recent site history - 2005 aerial photograph



Capture Date: 09/08/2005

Site Area: 1.44ha



Recent site history - 1999 aerial photograph

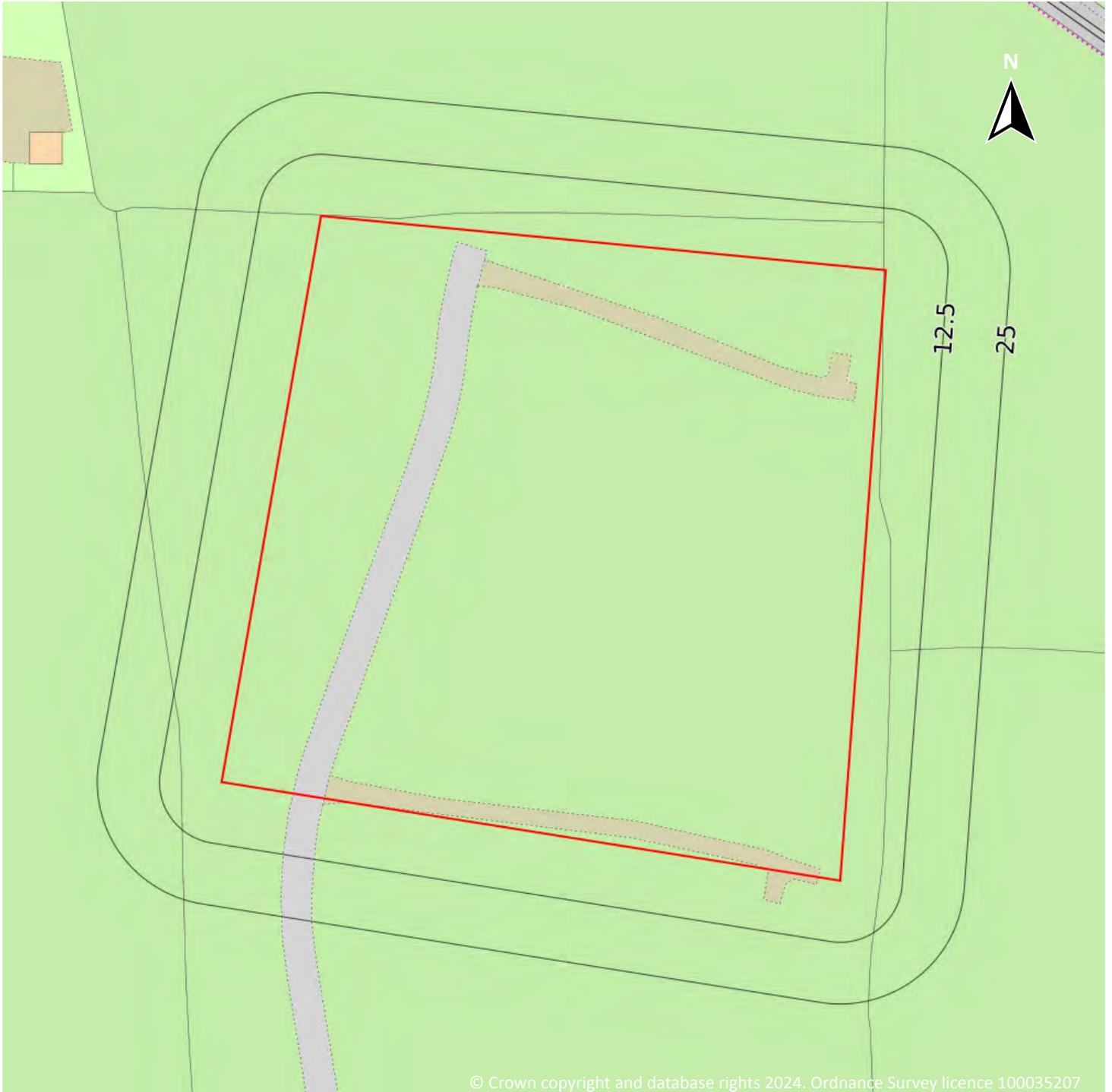


Capture Date: 25/07/1999

Site Area: 1.44ha



OS MasterMap site plan

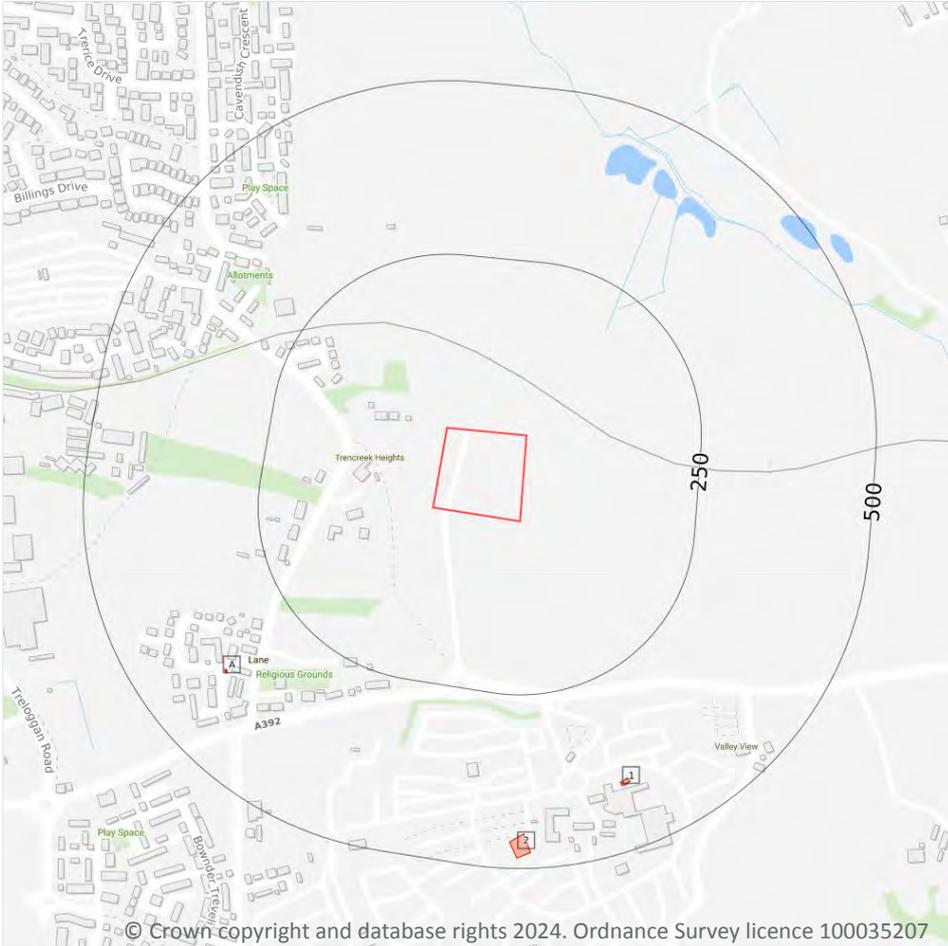


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Site Area: 1.44ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical energy features

1.1 Historical industrial land uses

Records within 500m **0**

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



1.2 Historical tanks

Records within 500m

0

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

4

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
A	376m SW	Electricity Substation	1991 - 1998	1905
A	377m SW	Electricity Substation	1993	1817
1	400m SE	Electricity Substation	1980 - 1991	2431
2	450m S	Electricity Substation	1991	1107

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



1.5 Historical garages

Records within 500m

0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

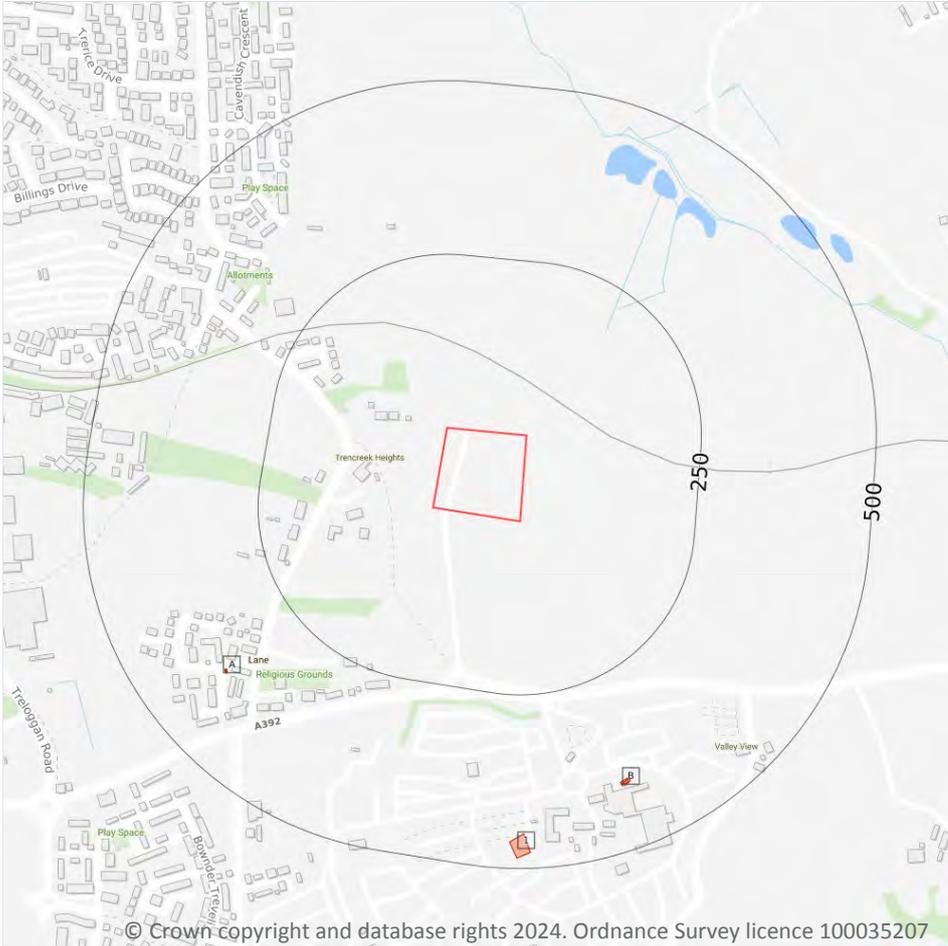
0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.



2 Past land use - un-grouped



- Site Outline
- Search buffers in metres (m)
- Historical energy features

2.1 Historical industrial land uses

Records within 500m **0**

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

0

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

7

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 18 >](#)

ID	Location	Land Use	Date	Group ID
A	376m SW	Electricity Substation	1996	1905
A	376m SW	Electricity Substation	1998	1905
A	377m SW	Electricity Substation	1991	1905
A	377m SW	Electricity Substation	1993	1817
B	400m SE	Electricity Substation	1991	2431
B	401m SE	Electricity Substation	1980	2431
1	450m S	Electricity Substation	1991	1107

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



2.5 Historical garages

Records within 500m

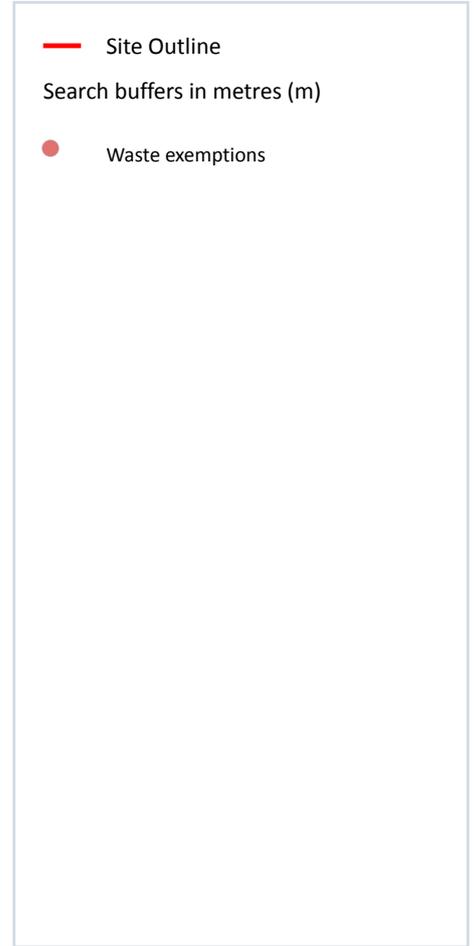
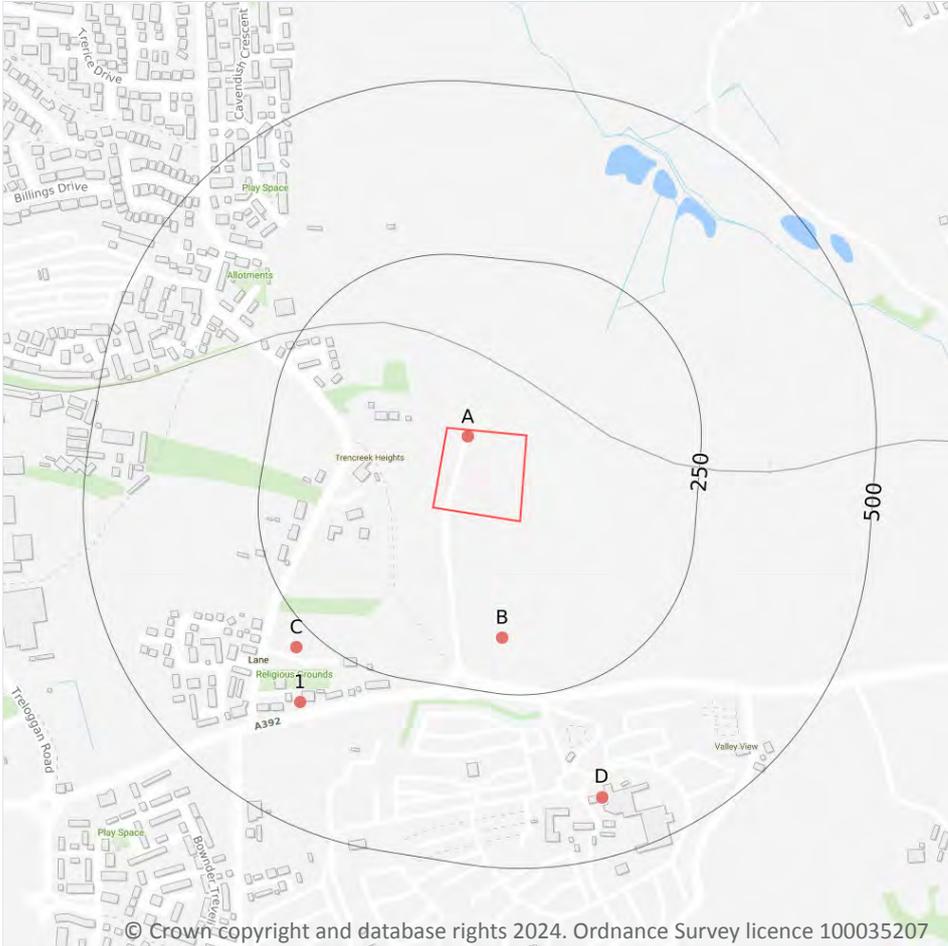
0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m

0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m

0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m

0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m

0

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m

0

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m

16

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on [page 21 >](#)

ID	Location	Site	Reference	Category	Sub-Category	Description
A	On site	-	WEX339592	Using waste exemption	Not on a farm	Use of waste in construction

ID	Location	Site	Reference	Category	Sub-Category	Description
A	On site	-	WEX339592	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	170m S	CORMAC Site Office Newquay Strategic Route A392 Hendra Newquay Cornwall TR8 4NY	EPR/PF0209EQ /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
B	170m S	CORMAC Site Office Newquay Strategic Route A392 Hendra Newquay Cornwall TR8 4NY	EPR/PF0209EQ /A001	Treating waste exemption	Non-Agricultural Waste Only	Aerobic composting and associated prior treatment
B	170m S	CORMAC Site Office Newquay Strategic Route A392 Hendra Newquay Cornwall TR8 4NY	EPR/PF0209EQ /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	170m S	CORMAC Site Office Newquay Strategic Route A392 Hendra Newquay Cornwall TR8 4NY	EPR/PF0209EQ /A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in construction
B	170m S	CORMAC Site Office Newquay Strategic Route A392 Hendra Newquay Cornwall TR8 4NY	EPR/PF0209EQ /A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste for a specified purpose
B	170m S	CORMAC Site Office Newquay Strategic Route A392 Hendra Newquay Cornwall TR8 4NY	EPR/PF0209EQ /A001	Using waste exemption	Non-Agricultural Waste Only	Use of mulch
C	281m SW	-	WEX348634	Disposing of waste exemption	Not on a farm	Deposit of waste from a railway sanitary convenience
C	281m SW	-	WEX348634	Storing waste exemption	Not on a farm	Storage of waste in a secure place
1	339m SW	THE WORKSHOP WESTWAYS LANE NEWQUAY CORNWALL TR8 4QB	EPR/PE5886PL /A001	Disposing of waste exemption	Non-Agricultural Waste Only	Burning waste in the open
D	413m S	HENDRA HOLIDAY PARK, LANE, NEWQUAY, TR8 4NY	WEX216248	Disposing of waste exemption	Not on a farm	Burning waste in the open
D	414m S	HENDRA HOLIDAY PARK, LANE, NEWQUAY, TR8 4NY	WEX338589	Using waste exemption	Not on a farm	Use of waste in construction

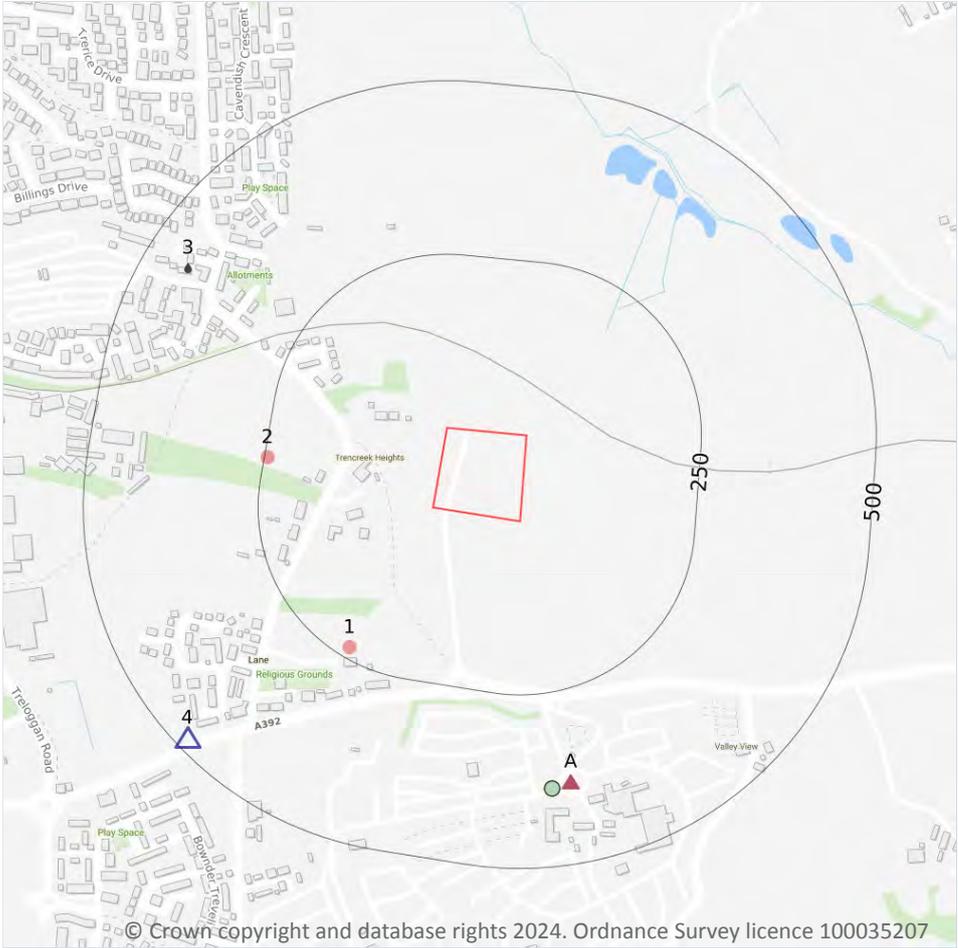


ID	Location	Site	Reference	Category	Sub-Category	Description
D	414m S	HENDRA HOLIDAY PARK, LANE, NEWQUAY, TR8 4NY	WEX339766	Disposing of waste exemption	Not on a farm	Burning waste in the open
D	414m S	HENDRA HOLIDAY PARK, LANE, NEWQUAY, TR8 4NY	WEX214785	Using waste exemption	Not on a farm	Use of waste in construction
D	414m S	HENDRA HOLIDAY PARK, LANE, NEWQUAY, TR8 4NY	WEX070661	Using waste exemption	Not on a farm	Use of waste in construction

This data is sourced from the Environment Agency and Natural Resources Wales.



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- △ Current or recent petrol stations
- ▲ Hazardous substance storage/usage
- ◆ Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m **2**

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 25](#) >

ID	Location	Company	Address	Activity	Category
1	234m SW	Mast	Cornwall, TR8	Telecommunications Features	Infrastructure and Facilities
2	246m W	Wind Turbine	Cornwall, TR8	Energy Production	Industrial Features

This data is sourced from Ordnance Survey.



4.2 Current or recent petrol stations

Records within 500m

1

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on [page 25 >](#)

ID	Location	Company	Address	LPG	Status
4	483m SW	ESSO	Rule Lane, Trevemper, Newquay, Cornwall, TR8 4XB	No	Open

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m

0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m

0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.



4.7 Regulated explosive sites

Records within 500m

0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

1

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

Features are displayed on the Current industrial land use map on [page 25 >](#)

ID	Location	Details	
A	381m S	Application reference number: No Details Application status: Approved Application date: No Details Address: Hendra TC and CP Ltd, Hendra Holiday Park, Newquay, Cornwall, TR8 4NY	Details: No Details Enforcement: No Details Date of enforcement: No Details Comment: No Details

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.



4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m

0

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m

0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m

1

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on [page 25 >](#)

ID	Location	Address	Details	
3	436m NW	TRENCREEK EO, NEWQUAY, CORNWALL	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: CRA 117 Permit Version: 1 Receiving Water: TREVENSON STREAM	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 15/08/1963 Effective Date: 15/08/1963 Revocation Date: 01/10/2000

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.



4.15 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m

0

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m

0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m

3

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on [page 25 >](#)

ID	Location	Details	
A	387m S	Incident Date: 18/06/2002 Incident Identification: 85637 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
A	387m S	Incident Date: 18/06/2002 Incident Identification: 85637 Pollutant: Atmospheric Pollutants and Effects:Organic Chemicals/Products Pollutant Description: Smoke:Surfactants and Detergents	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)



ID	Location	Details	
A	387m S	Incident Date: 18/06/2002 Incident Identification: 85637 Pollutant: Organic Chemicals/Products Pollutant Description: Surfactants and Detergents	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m	0
----------------------------	----------

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m	0
----------------------------	----------

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.21 Pollution inventory radioactive waste

Records within 500m	0
----------------------------	----------

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

5 Hydrogeology - Superficial aquifer

5.1 Superficial aquifer

Records within 500m

0

Aquifer status of groundwater held within superficial geology.

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Bedrock aquifer



— Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive

5.2 Bedrock aquifer

Records within 500m

1

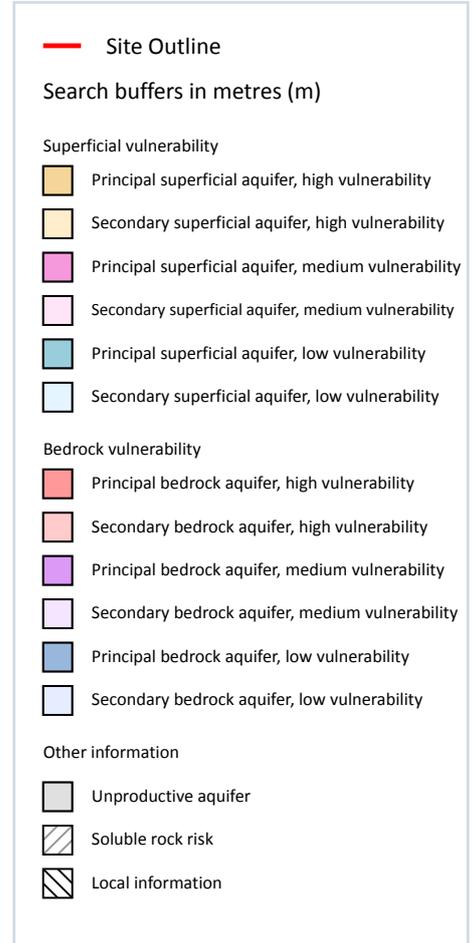
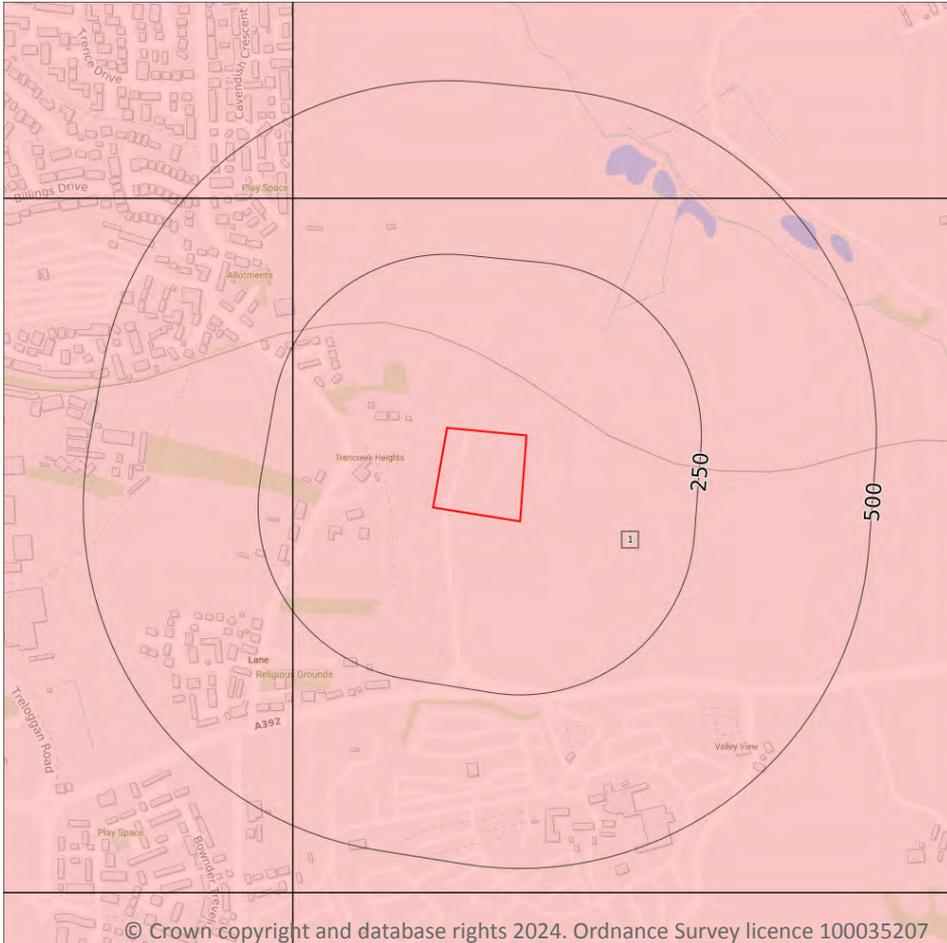
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 32 >](#)

ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

1

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on [page 33](#) >

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

5.5 Groundwater vulnerability- local information

Records on site

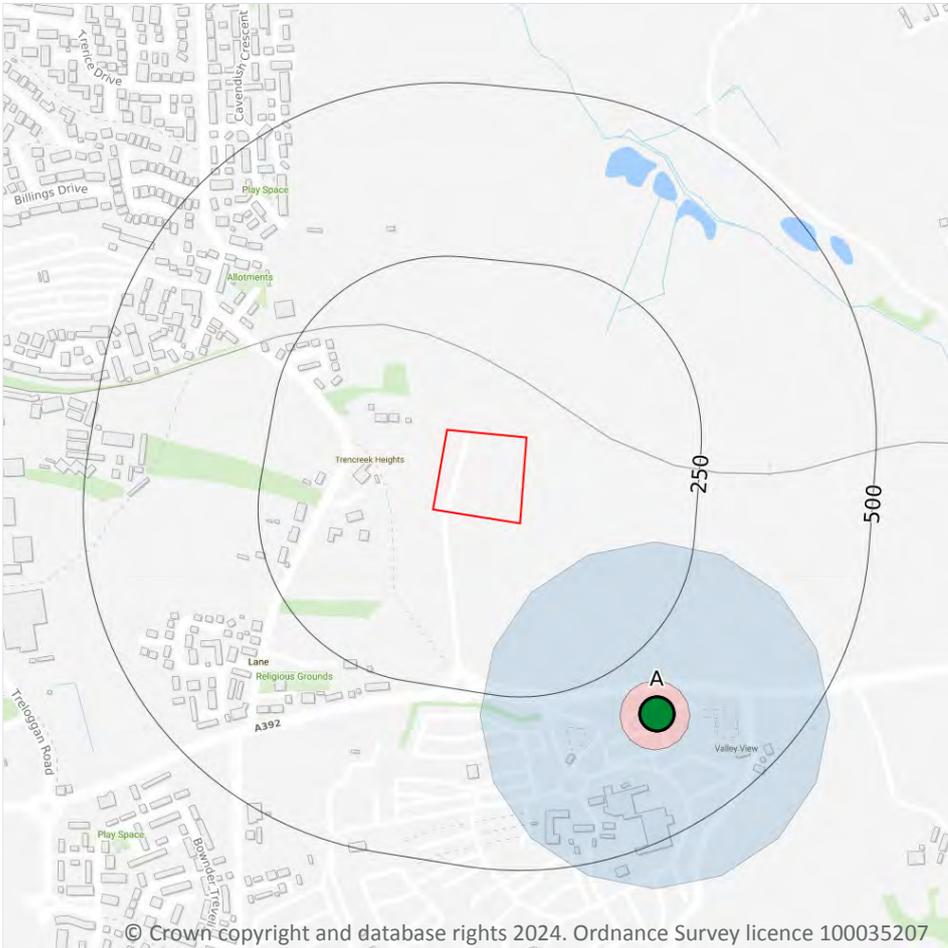
0

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk ↗.

This data is sourced from the British Geological Survey and the Environment Agency.



Abstractions and Source Protection Zones



5.6 Groundwater abstractions

Records within 2000m

16

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 35 >](#)

ID	Location	Details	
A	337m SE	Status: Active Licence No: SW/049/0271/001/R01 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - Fresh Point: HENDRA TOURING CARAVAN PARK, COLAN - BOREHOLE. Data Type: Point Name: Hendra Touring Caravan & Camping Park Ltd Easting: 183520 Northing: 60260	Annual Volume (m ³): 27000 Max Daily Volume (m ³): 365 Original Application No: NPS/WR/021654 Original Start Date: 01/04/2017 Expiry Date: 31/03/2029 Issue No: 1 Version Start Date: 01/04/2017 Version End Date: -
A	337m SE	Status: Historical Licence No: 15/49/271/G/044 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - Fresh Point: "HENDRA TOURING CARAVAN PARK, COLAN - BOREHOLE." Data Type: Point Name: Hendra Touring Caravan&Camping Park Ltd. Easting: 183520 Northing: 60260	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 05/11/1999 Expiry Date: 18/01/2010 Issue No: 1 Version Start Date: 05/11/1999 Version End Date: -
A	337m SE	Status: Historical Licence No: 15/49/271/G/044 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - Fresh Point: HENDRA TOURING CARAVAN PARK, COLAN - BOREHOLE. Data Type: Point Name: Hendra Touring Caravan&Camping Park Ltd Easting: 183520 Northing: 60260	Annual Volume (m ³): 27000 Max Daily Volume (m ³): 365 Original Application No: - Original Start Date: 05/11/1999 Expiry Date: 18/01/2010 Issue No: 1 Version Start Date: 05/11/1999 Version End Date: -
A	337m SE	Status: Historical Licence No: SW/049/0271/001 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - Fresh Point: HENDRA TOURING CARAVAN PARK, COLAN - BOREHOLE. Data Type: Point Name: Hendra Touring Caravan & Camping Park Ltd Easting: 183520 Northing: 60260	Annual Volume (m ³): 27000 Max Daily Volume (m ³): 365 Original Application No: - Original Start Date: 18/06/2010 Expiry Date: 31/03/2017 Issue No: 1 Version Start Date: 18/06/2010 Version End Date: -



ID	Location	Details	
-	735m S	Status: Historical Licence No: 15/49/271/G/022 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "TREVILLEY COURT FARM, COLAN" Data Type: Point Name: Thomas Easting: 183300 Northing: 59800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1995 Version End Date: -
-	735m S	Status: Historical Licence No: 15/49/271/G/022 Details: Spray Irrigation - Direct Direct Source: Ground Water - Fresh Point: "TREVILLEY COURT FARM, COLAN" Data Type: Point Name: Thomas Easting: 183300 Northing: 59800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1995 Version End Date: -
-	735m S	Status: Historical Licence No: 15/49/271/G/022 Details: Spray Irrigation - Direct Direct Source: Ground Water - Fresh Point: TREVILLEY COURT FARM, COLAN Data Type: Point Name: Hendra Touring Caravan&Camping Park Ltd Easting: 183300 Northing: 59800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/12/2003 Version End Date: -
-	735m S	Status: Historical Licence No: 15/49/271/G/022 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: TREVILLEY COURT FARM, COLAN Data Type: Point Name: Hendra Touring Caravan&Camping Park Ltd Easting: 183300 Northing: 59800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/12/2003 Version End Date: -
-	943m SW	Status: Historical Licence No: 15/49/271/G/020 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "HIGHER TREVILLEY FARM, COLAN - WELL" Data Type: Point Name: Barrett Easting: 182800 Northing: 59700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 18/03/1986 Version End Date: -



ID	Location	Details	
-	943m SW	Status: Historical Licence No: 15/49/271/G/020 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: HIGHER TREVILLEY FARM, COLAN - WELL Data Type: Point Name: Barrett Easting: 182800 Northing: 59700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 18/03/1986 Version End Date: -
-	1323m S	Status: Historical Licence No: 15/49/271/G/007 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "THE HOMESTEAD FARM, TRERICE - WELL" Data Type: Point Name: Sidebotham Easting: 183800 Northing: 59300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 31/12/1965 Version End Date: -
-	1323m S	Status: Historical Licence No: 15/49/271/G/007 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: THE HOMESTEAD FARM, TRERICE - WELL Data Type: Point Name: Sidebotham Easting: 183800 Northing: 59300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 31/12/1965 Version End Date: -
-	1605m SE	Status: Historical Licence No: 15/49/271/G/026 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: LITTLE TREGITHEY FARM, NEWQUAY - WELL A Data Type: Point Name: Curgenvan Easting: 184800 Northing: 59900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -
-	1627m E	Status: Historical Licence No: 15/49/272/G/050 Details: Potable Water Supply - Direct Direct Source: Ground Water - Fresh Point: TREWALLOCK SHAFT Data Type: Point Name: South West Water Services Ltd Easting: 184900 Northing: 61100	Annual Volume (m ³): 227300 Max Daily Volume (m ³): 2273 Original Application No: - Original Start Date: 15/07/1977 Expiry Date: - Issue No: 100 Version Start Date: 22/10/1984 Version End Date: -



ID	Location	Details	
-	1657m S	Status: Historical Licence No: 15/49/271/G/042 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "7 TRERICE, ST NEWLYN EAST - BOREHOLE" Data Type: Point Name: Comley Easting: 183900 Northing: 58980	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 30/04/1996 Expiry Date: - Issue No: 100 Version Start Date: 30/04/1996 Version End Date: -
-	1657m S	Status: Historical Licence No: 15/49/271/G/042 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: 7 TRERICE, ST NEWLYN EAST - BOREHOLE Data Type: Point Name: Comley Easting: 183900 Northing: 58980	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 30/04/1996 Expiry Date: - Issue No: 100 Version Start Date: 30/04/1996 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m

7

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 35 >](#)

ID	Location	Details	
-	838m S	Status: Historical Licence No: 15/49/271/S/006 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Surface Water - Fresh Point: LEGONNA FARM, NEWQUAY - SPRING Data Type: Point Name: Coombe Easting: 183400 Northing: 59700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 03/11/1980 Version End Date: -



ID	Location	Details	
-	1263m NW	Status: Historical Licence No: 15/49/271/S/010 Details: Lake & Pond Throughflow Direct Source: Surface Water - Fresh Point: "CORNWALL ANIMAL WORLD, NEWQUAY - RIVER GANNEL NO. 2" Data Type: Point Name: Cornwall Animal World Easting: 182190 Northing: 61400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/04/1994 Expiry Date: - Issue No: 100 Version Start Date: 07/01/1997 Version End Date: -
-	1263m NW	Status: Historical Licence No: 15/49/271/S/010 Details: Lake & Pond Throughflow Direct Source: Surface Water - Fresh Point: CORNWALL ANIMAL WORLD, NEWQUAY - RIVER GANNEL NO. 2 Data Type: Point Name: Paignton Zoological & Botanical Gardens Limited Easting: 182190 Northing: 61400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/04/1994 Expiry Date: - Issue No: 101 Version Start Date: 01/02/2004 Version End Date: -
-	1285m NW	Status: Active Licence No: 15/49/271/S/010 Details: Lake & Pond Throughflow Direct Source: Surface Water - Fresh Point: CORNWALL ANIMAL WORLD, NEWQUAY - RIVER GANNEL NO. 1 Data Type: Point Name: South West Environmental Parks Ltd Easting: 182170 Northing: 61410	Annual Volume (m ³): 52560 Max Daily Volume (m ³): 144 Original Application No: 12322 Original Start Date: 06/04/1994 Expiry Date: - Issue No: 103 Version Start Date: 01/04/2020 Version End Date: -
-	1285m NW	Status: Active Licence No: 15/49/271/S/010 Details: General Farming & Domestic Direct Source: Surface Water - Fresh Point: CORNWALL ANIMAL WORLD, NEWQUAY - RIVER GANNEL NO. 1 Data Type: Point Name: South West Environmental Parks Ltd Easting: 182170 Northing: 61410	Annual Volume (m ³): 52560 Max Daily Volume (m ³): 144 Original Application No: 12322 Original Start Date: 06/04/1994 Expiry Date: - Issue No: 103 Version Start Date: 01/04/2020 Version End Date: -



ID	Location	Details	
-	1285m NW	Status: Historical Licence No: 15/49/271/S/010 Details: Animal Watering & General Use in non Farming situations Direct Source: Surface Water - Fresh Point: "CORNWALL ANIMAL WORLD, NEWQUAY - RIVER GANNEL NO. 1" Data Type: Point Name: Cornwall Animal World Easting: 182170 Northing: 61410	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/04/1994 Expiry Date: - Issue No: 100 Version Start Date: 07/01/1997 Version End Date: -
-	1285m NW	Status: Historical Licence No: 15/49/271/S/010 Details: Animal Watering & General Use in non Farming situations Direct Source: Surface Water - Fresh Point: CORNWALL ANIMAL WORLD, NEWQUAY - RIVER GANNEL NO. 1 Data Type: Point Name: Paignton Zoological & Botanical Gardens Limited Easting: 182170 Northing: 61410	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/04/1994 Expiry Date: - Issue No: 101 Version Start Date: 01/02/2004 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m

6

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 35 >](#)

ID	Location	Details	
A	337m SE	Status: Active Licence No: SW/049/0271/001/R01 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - Fresh Point: HENDRA TOURING CARAVAN PARK, COLAN - BOREHOLE. Data Type: Point Name: Hendra Touring Caravan & Camping Park Ltd Easting: 183520 Northing: 60260	Annual Volume (m ³): 27000 Max Daily Volume (m ³): 365 Original Application No: NPS/WR/021654 Original Start Date: 01/04/2017 Expiry Date: 31/03/2029 Issue No: 1 Version Start Date: 01/04/2017 Version End Date: -



ID	Location	Details	
A	337m SE	Status: Historical Licence No: 15/49/271/G/044 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - Fresh Point: "HENDRA TOURING CARAVAN PARK, COLAN - BOREHOLE." Data Type: Point Name: Hendra Touring Caravan&Camping Park Ltd. Easting: 183520 Northing: 60260	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 05/11/1999 Expiry Date: 18/01/2010 Issue No: 1 Version Start Date: 05/11/1999 Version End Date: -
A	337m SE	Status: Historical Licence No: 15/49/271/G/044 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - Fresh Point: HENDRA TOURING CARAVAN PARK, COLAN - BOREHOLE. Data Type: Point Name: Hendra Touring Caravan&Camping Park Ltd Easting: 183520 Northing: 60260	Annual Volume (m ³): 27000 Max Daily Volume (m ³): 365 Original Application No: - Original Start Date: 05/11/1999 Expiry Date: 18/01/2010 Issue No: 1 Version Start Date: 05/11/1999 Version End Date: -
A	337m SE	Status: Historical Licence No: SW/049/0271/001 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - Fresh Point: HENDRA TOURING CARAVAN PARK, COLAN - BOREHOLE. Data Type: Point Name: Hendra Touring Caravan & Camping Park Ltd Easting: 183520 Northing: 60260	Annual Volume (m ³): 27000 Max Daily Volume (m ³): 365 Original Application No: - Original Start Date: 18/06/2010 Expiry Date: 31/03/2017 Issue No: 1 Version Start Date: 18/06/2010 Version End Date: -
-	838m S	Status: Historical Licence No: 15/49/271/S/006 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Surface Water - Fresh Point: LEGONNA FARM, NEWQUAY - SPRING Data Type: Point Name: Coombe Easting: 183400 Northing: 59700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 03/11/1980 Version End Date: -



ID	Location	Details	
-	1627m E	Status: Historical Licence No: 15/49/272/G/050 Details: Potable Water Supply - Direct Direct Source: Ground Water - Fresh Point: TREWALLOCK SHAFT Data Type: Point Name: South West Water Services Ltd Easting: 184900 Northing: 61100	Annual Volume (m ³): 227300 Max Daily Volume (m ³): 2273 Original Application No: - Original Start Date: 15/07/1977 Expiry Date: - Issue No: 100 Version Start Date: 22/10/1984 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m	2
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Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on [page 35 >](#)

ID	Location	Type	Description
A	92m SE	2	Outer catchment
A	288m SE	1	Inner catchment

This data is sourced from the Environment Agency and Natural Resources Wales.

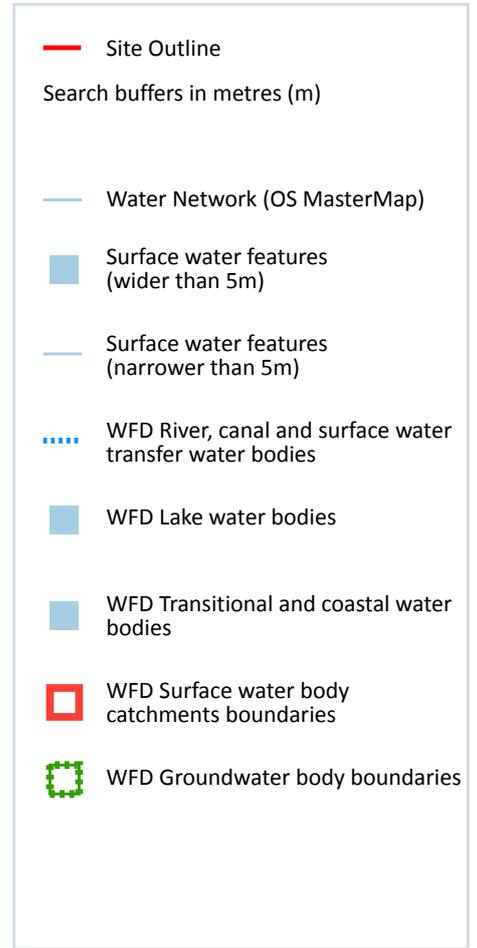
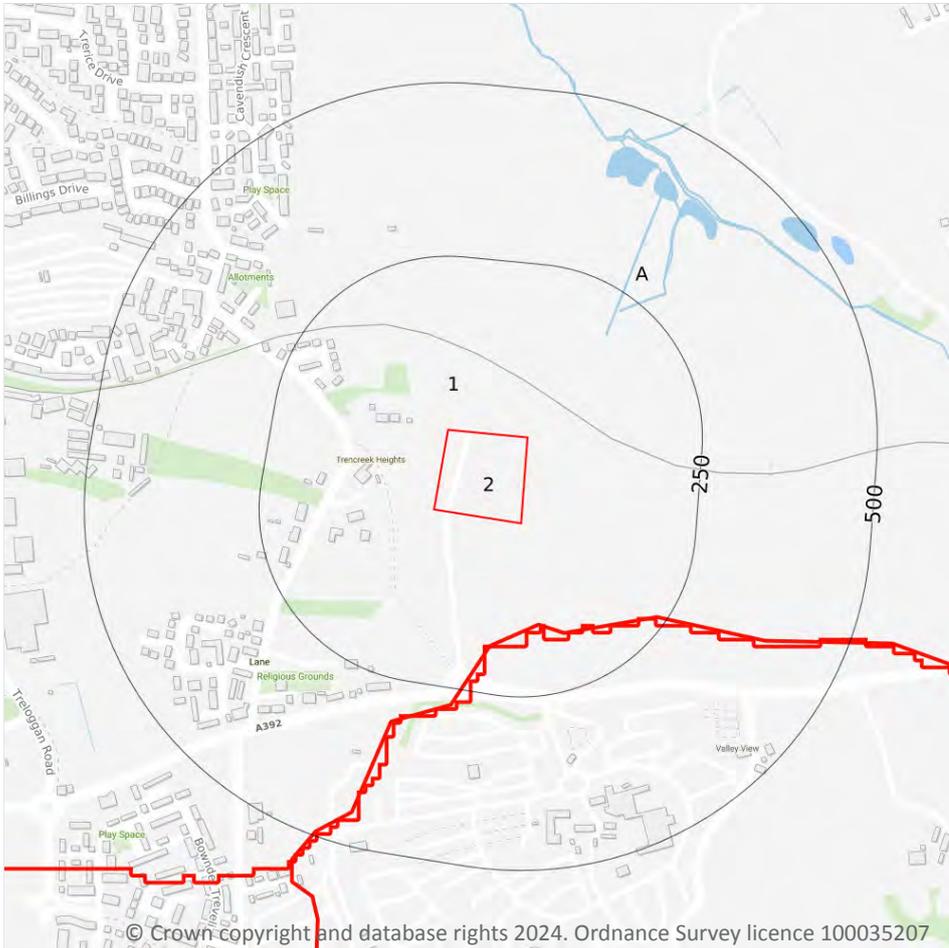
5.10 Source Protection Zones (confined aquifer)

Records within 500m	0
----------------------------	----------

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.

6 Hydrology



6.1 Water Network (OS MasterMap)

Records within 250m

2

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on [page 44 >](#)

ID	Location	Type of water feature	Ground level	Permanence	Name
A	185m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
A	224m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

2

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on [page 44 >](#)

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site

1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on [page 44 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	Coastal Catchment	Not part of a river WB catchment	197	Gannel Porth and Menalhyl	North Cornwall, Seaton, Looe and Fowey

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified

0

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the



water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site	1
------------------------	----------

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on [page 44 >](#)

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	On site	North Cornwall	GB40802G800300 ↗	Poor	Poor	Good	2019

This data is sourced from the Environment Agency and Natural Resources Wales.

7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m

0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m

0

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m

0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.



7.4 Areas Benefiting from Flood Defences

Records within 250m

0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m

0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.



8 Surface water flooding

8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

Negligible

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Negligible

Highest risk within 50m

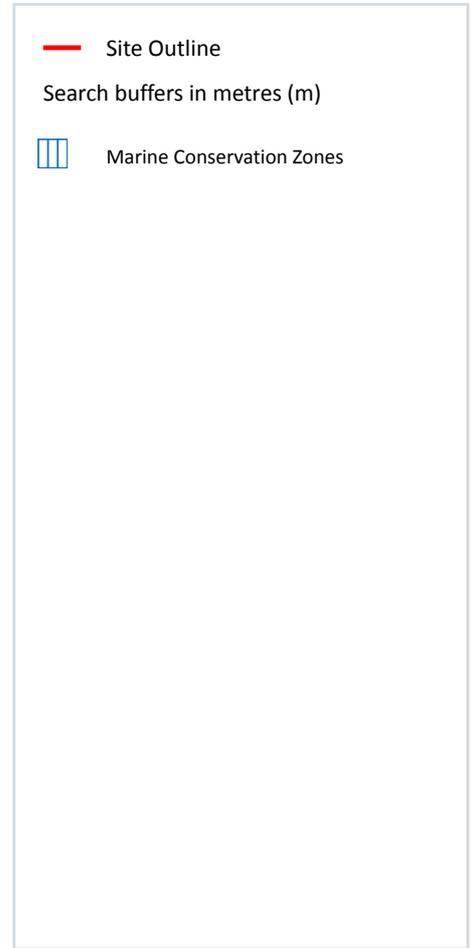
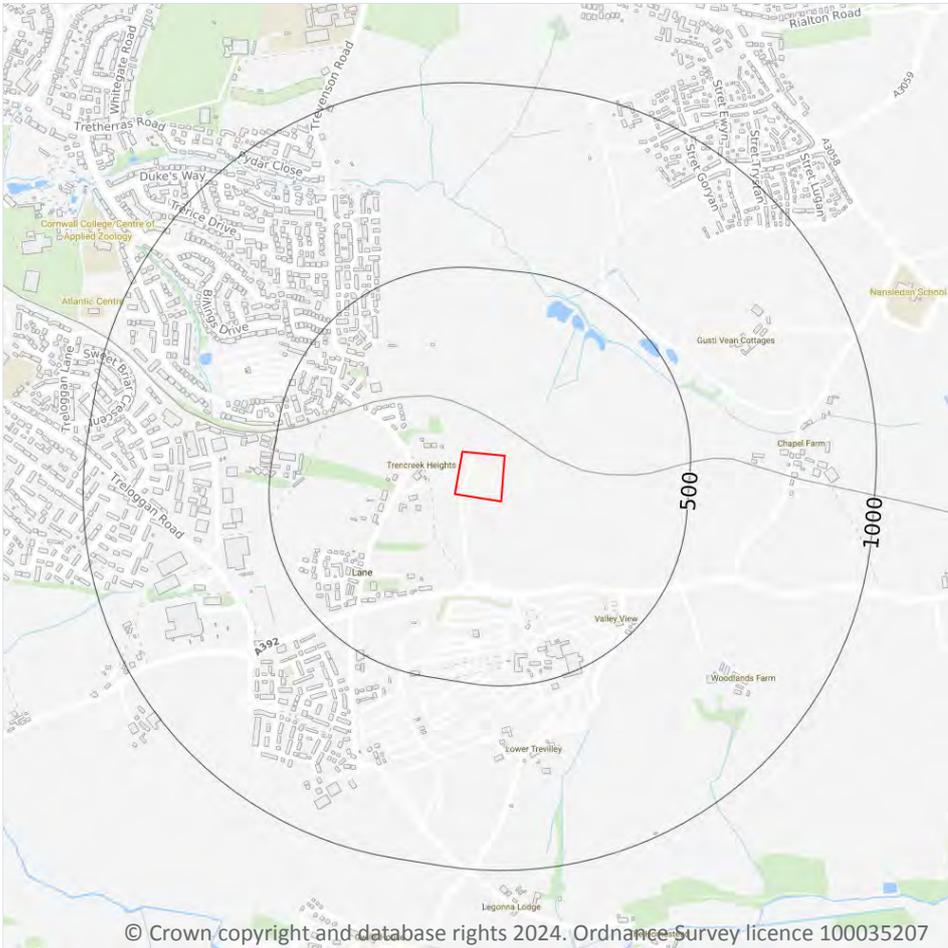
Negligible

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on [page 51 >](#)

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m

0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m

0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m

0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.



10.6 Local Nature Reserves (LNR)

Records within 2000m

0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m

0

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m

0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m

0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.



10.10 Marine Conservation Zones

Records within 2000m

4

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

Features are displayed on the Environmental designations map on [page 52 >](#)

ID	Location	Name	Status
-	1393m SW	Newquay and the Gannel	Designated
-	1399m SW	Newquay and the Gannel	Designated
-	1985m NW	Newquay and the Gannel	Designated
-	1993m NW	Newquay and the Gannel	Designated

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m

0

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m

0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.



10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m

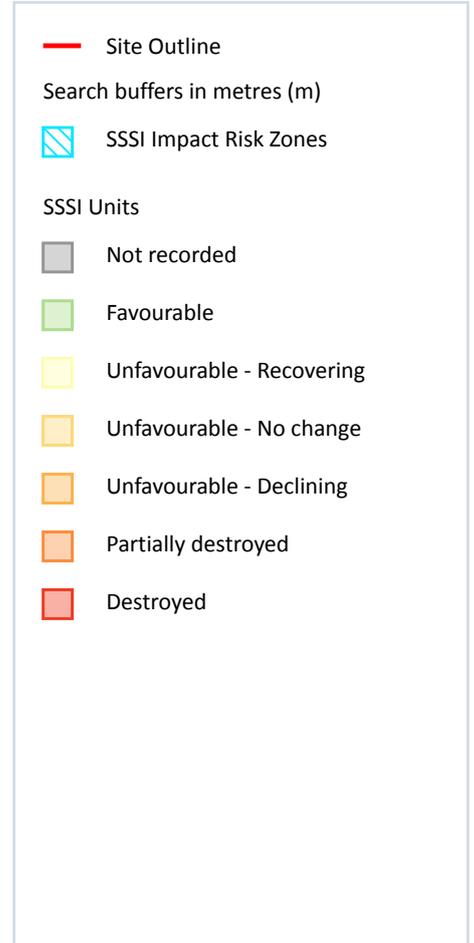
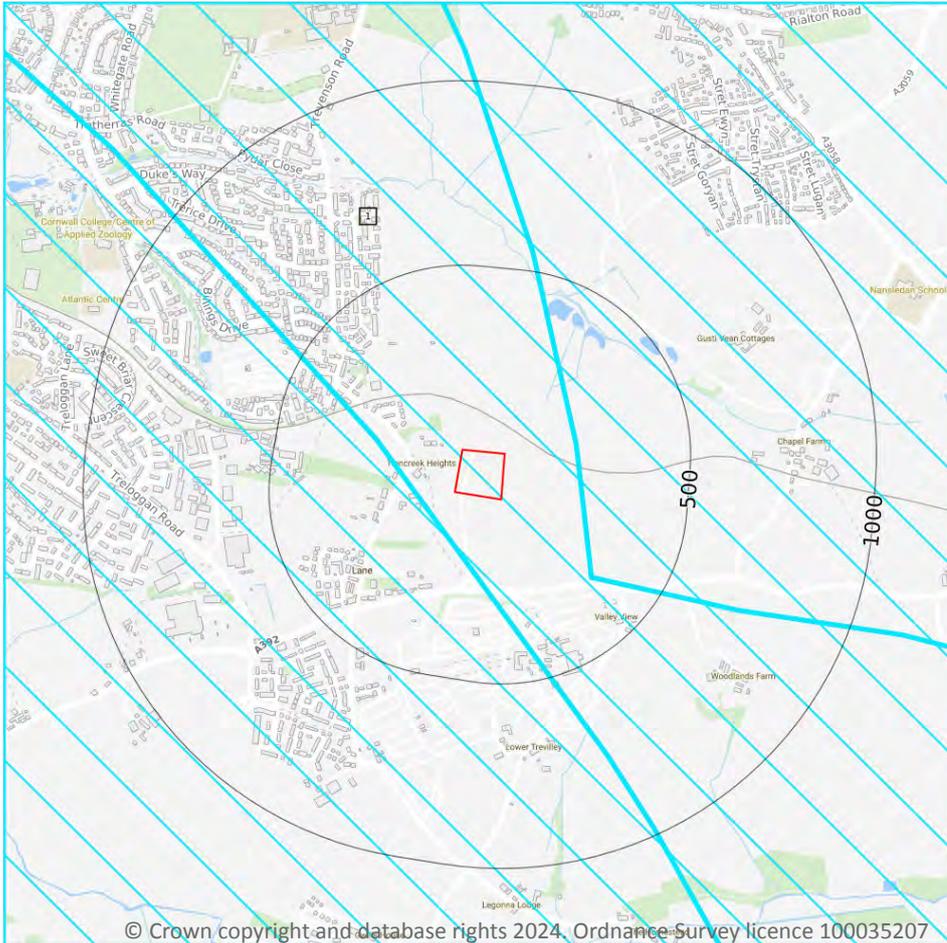
0

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

This data is sourced from Natural England and Natural Resources Wales.



SSSI Impact Zones and Units



10.17 SSSI Impact Risk Zones

Records on site

1

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on [page 57](#) >

ID	Location	Type of developments requiring consultation
1	On site	<p>Infrastructure - Airports, helipads and other aviation proposals.</p> <p>Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t).</p> <p>Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.</p> <p>Notes: Strategic solutions for recreational impacts are in place. Please contact your Local Planning Authority as they have the information to advise on specific requirements.</p>

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0
-----------------------------	----------

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.

11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m

0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m

0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m

0

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.



This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m

0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m

0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.7 Registered Parks and Gardens

Records within 250m

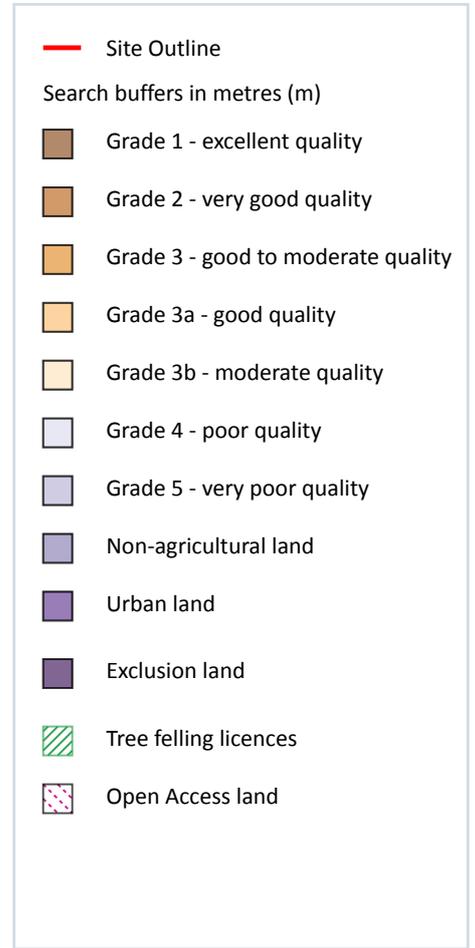
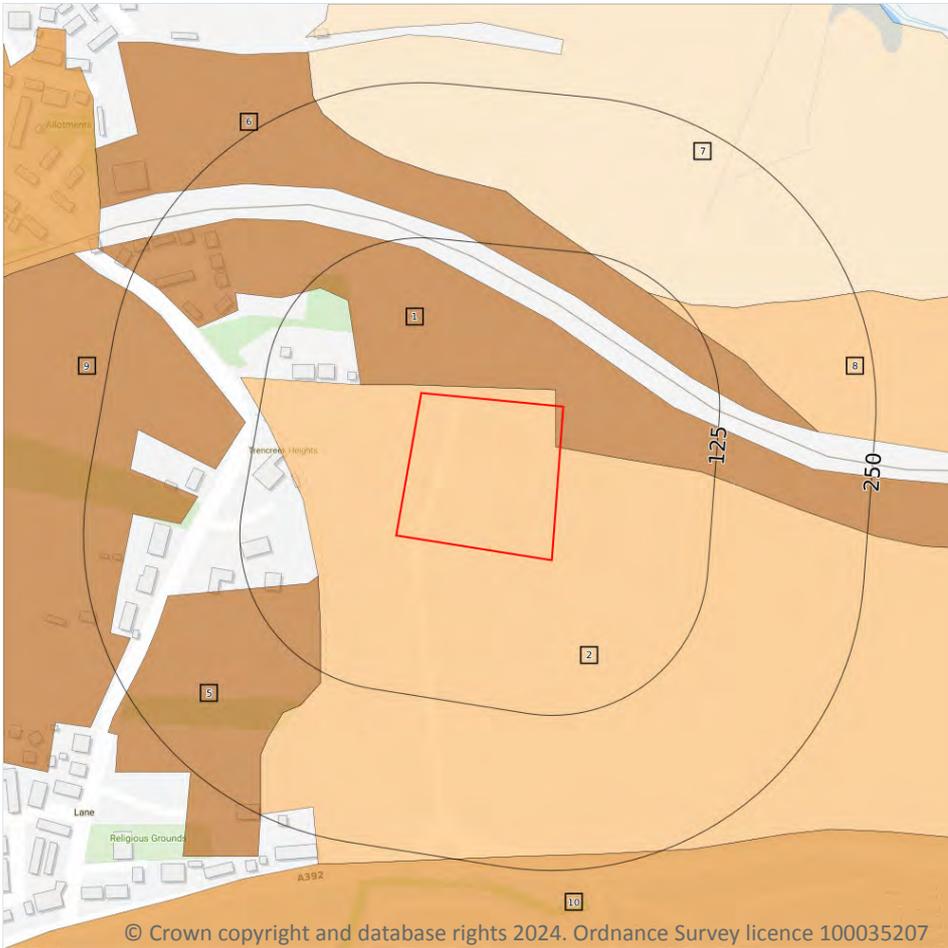
0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.



12 Agricultural designations



12.1 Agricultural Land Classification

Records within 250m	8
----------------------------	----------

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on [page 61](#) >

ID	Location	Classification	Description
1	On site	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
2	On site	Grade 3a	Good quality agricultural land. Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.
5	71m SW	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
6	78m NE	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
7	114m NE	Grade 3b	Moderate quality agricultural land. Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.
8	114m NE	Grade 3a	Good quality agricultural land. Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.
9	134m W	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
10	238m S	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

This data is sourced from Natural England.



12.2 Open Access Land

Records within 250m

0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m

0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

2

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

Location	Reference	Scheme	Start Date	End Date
On site	1406336	Countryside Stewardship (Higher Tier)	01/09/2022	31/08/2024
On site	1078079	Countryside Stewardship (Middle Tier)	01/01/2021	31/12/2025

This data is sourced from Natural England.



13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m

0

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

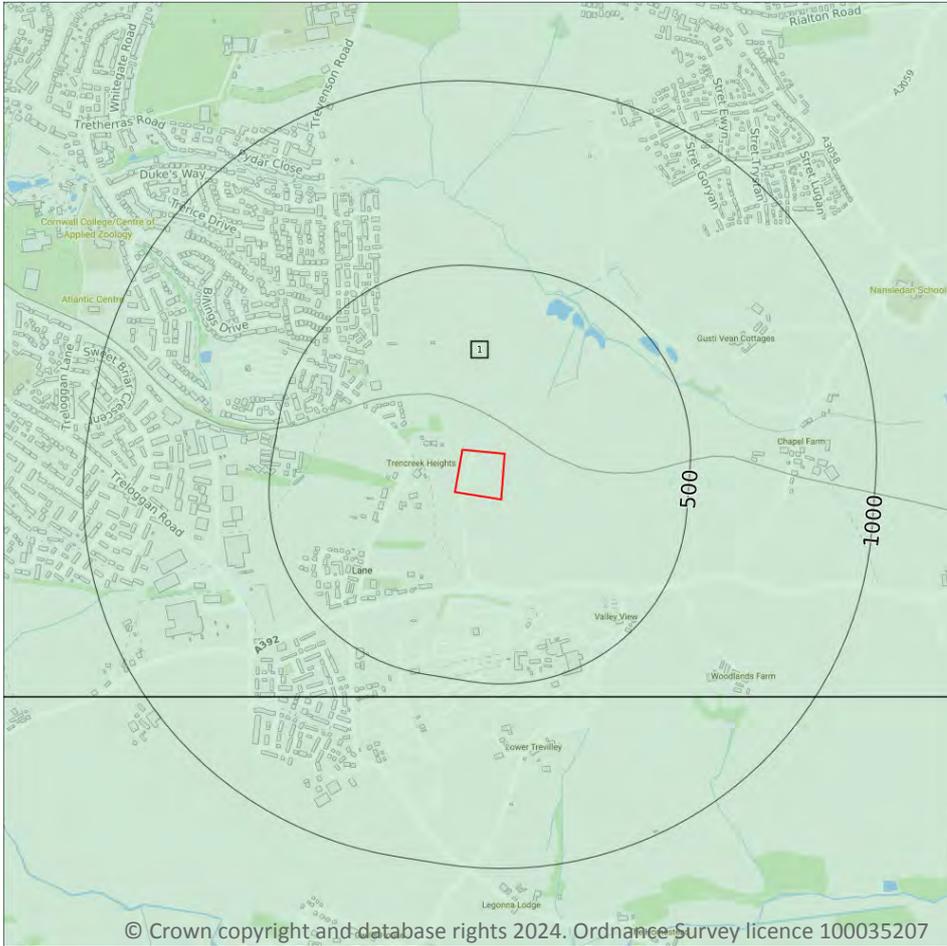
0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m

1

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on [page 65](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SW86SW

This data is sourced from the British Geological Survey.



Contact us with any questions at:

info@groundsure.com

01273 257 755

Date: 8 March 2024

Geology 1:10,000 scale - Artificial and made ground

14.2 Artificial and made ground (10k)

Records within 500m

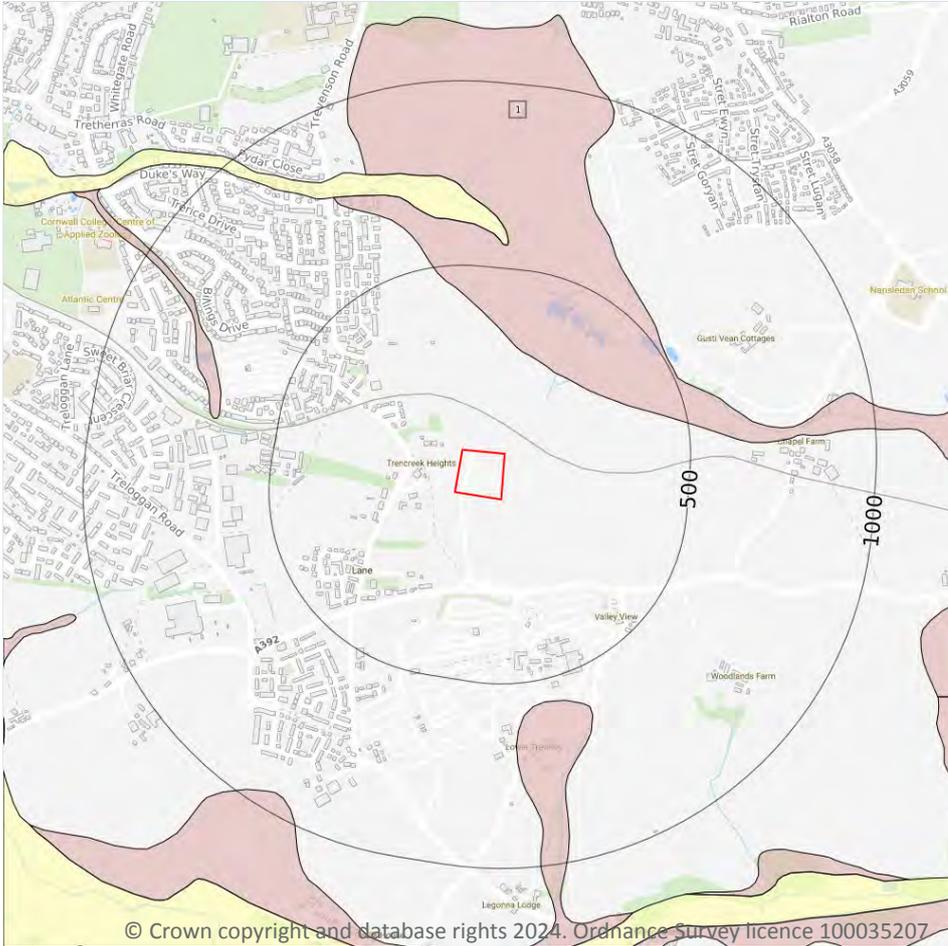
0

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



— Site Outline

Search buffers in metres (m)

▣ Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m

1

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on [page 67](#) >

ID	Location	LEX Code	Description	Rock description
1	258m NE	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

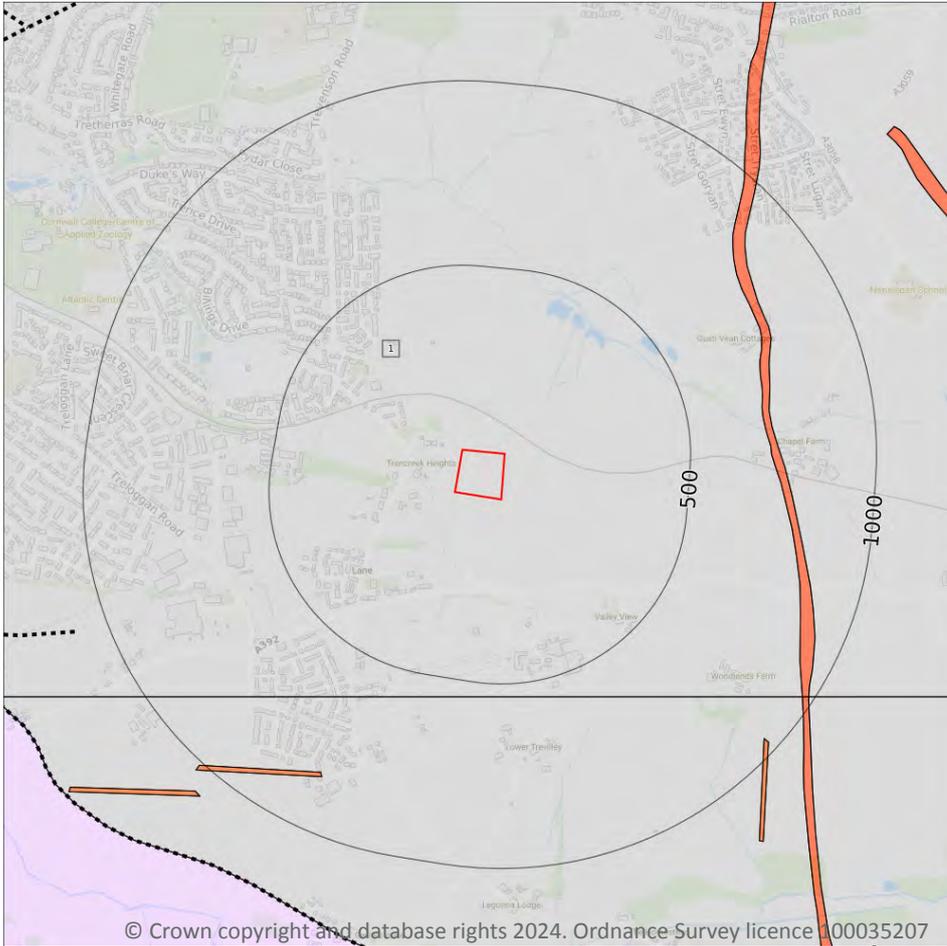
0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



- Site Outline
- Search buffers in metres (m)
- Bedrock faults and other linear features (10k)
- Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m

1

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 69](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	MDT-MDSS	Meadfoot Group - Mudstone, Siltstone And Sandstone	Emsian Age - Pragian Age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

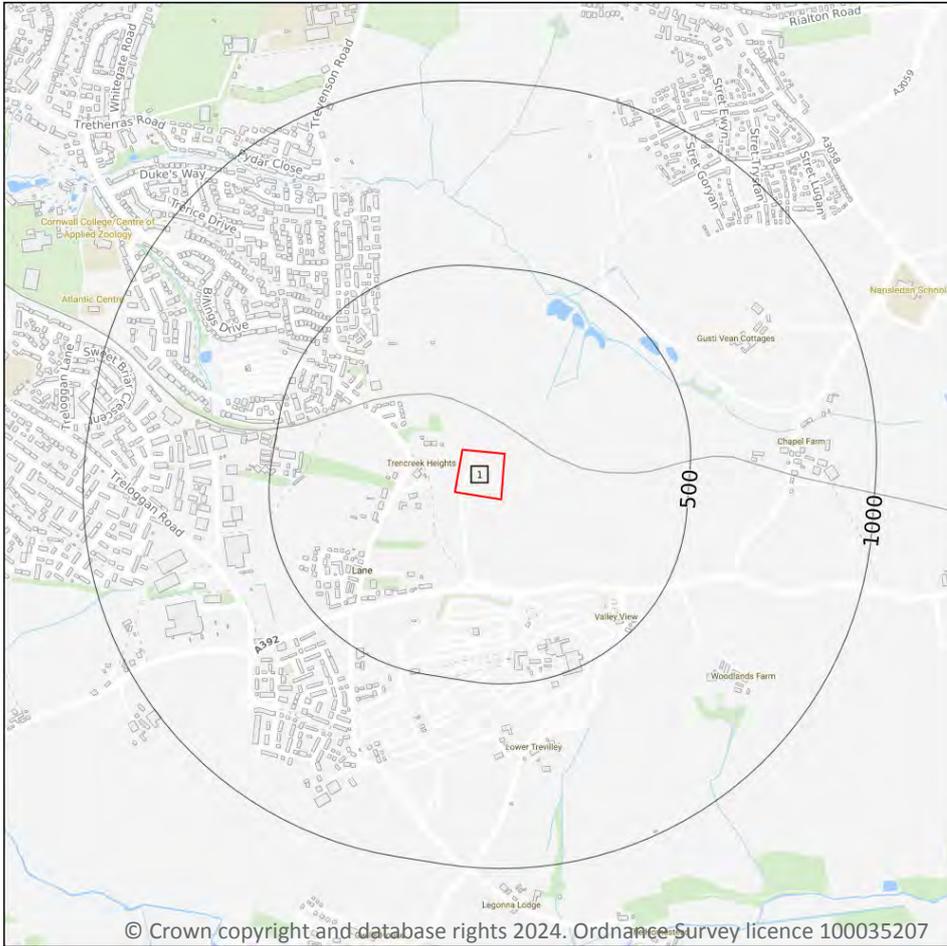
0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline
Search buffers in metres (m)

□ Geological map tile

15.1 50k Availability

Records within 500m

1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on [page 71](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	EW346_newquay_v4

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Artificial and made ground

15.2 Artificial and made ground (50k)

Records within 500m

0

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

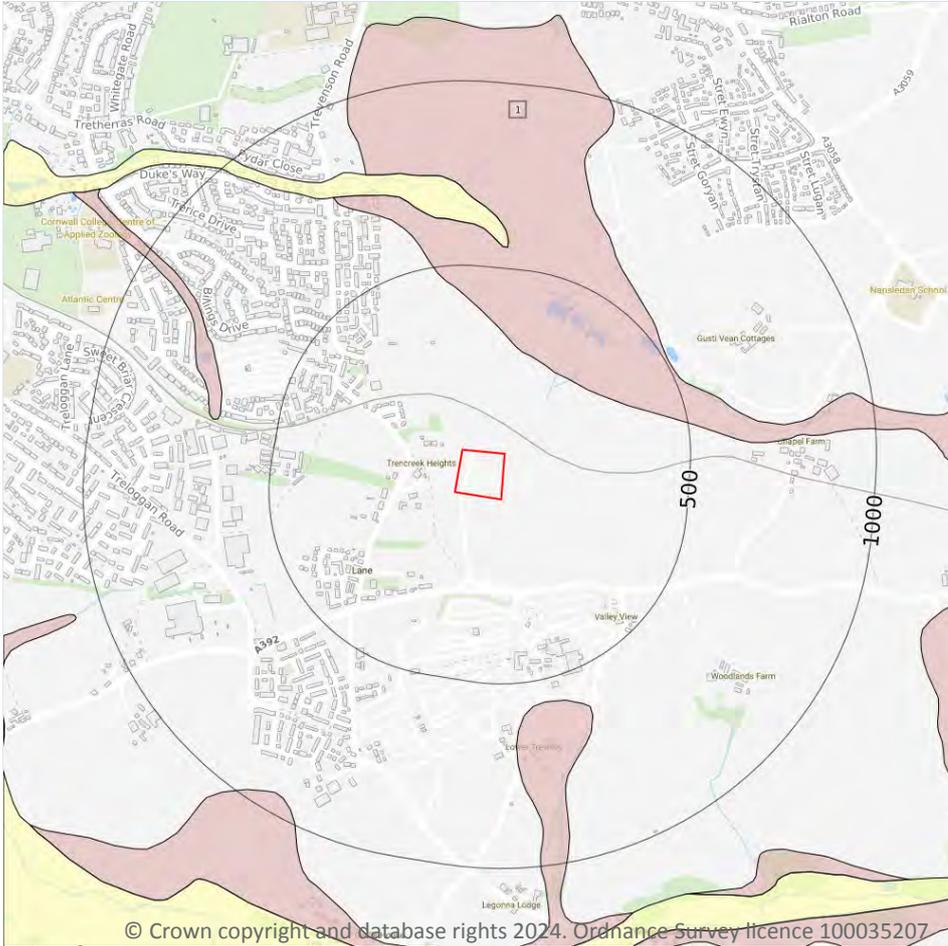
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



- Site Outline
- Search buffers in metres (m)
- Landslip (50k)
- Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m

1

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on [page 73 >](#)

ID	Location	LEX Code	Description	Rock description
1	258m NE	HEAD- XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m

0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m

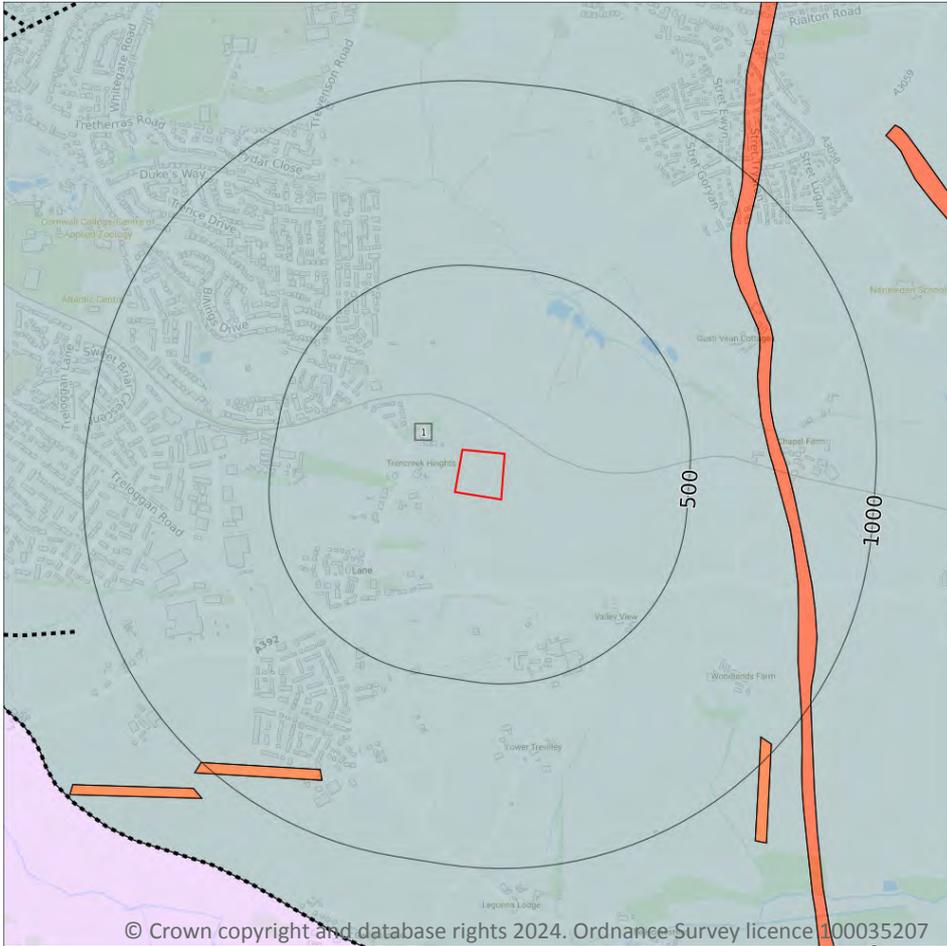
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



- Site Outline
- Search buffers in metres (m)
- Bedrock faults and other linear features (50k)
- Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m

1

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 75 >](#)

ID	Location	LEX Code	Description	Rock age
1	On site	BOV-MDSS	BOVISAND FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	PRAGIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1
---------------------------	----------

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Moderate	Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	0
----------------------------	----------

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.

16 Boreholes

16.1 BGS Boreholes

Records within 250m

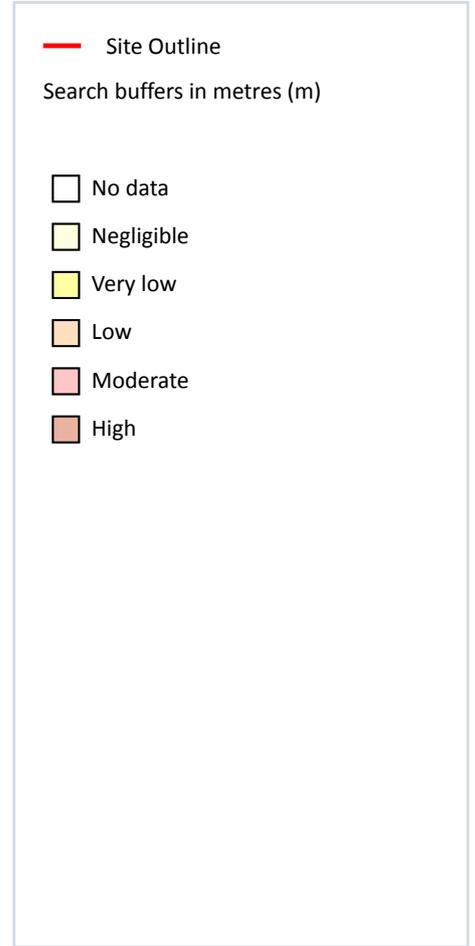
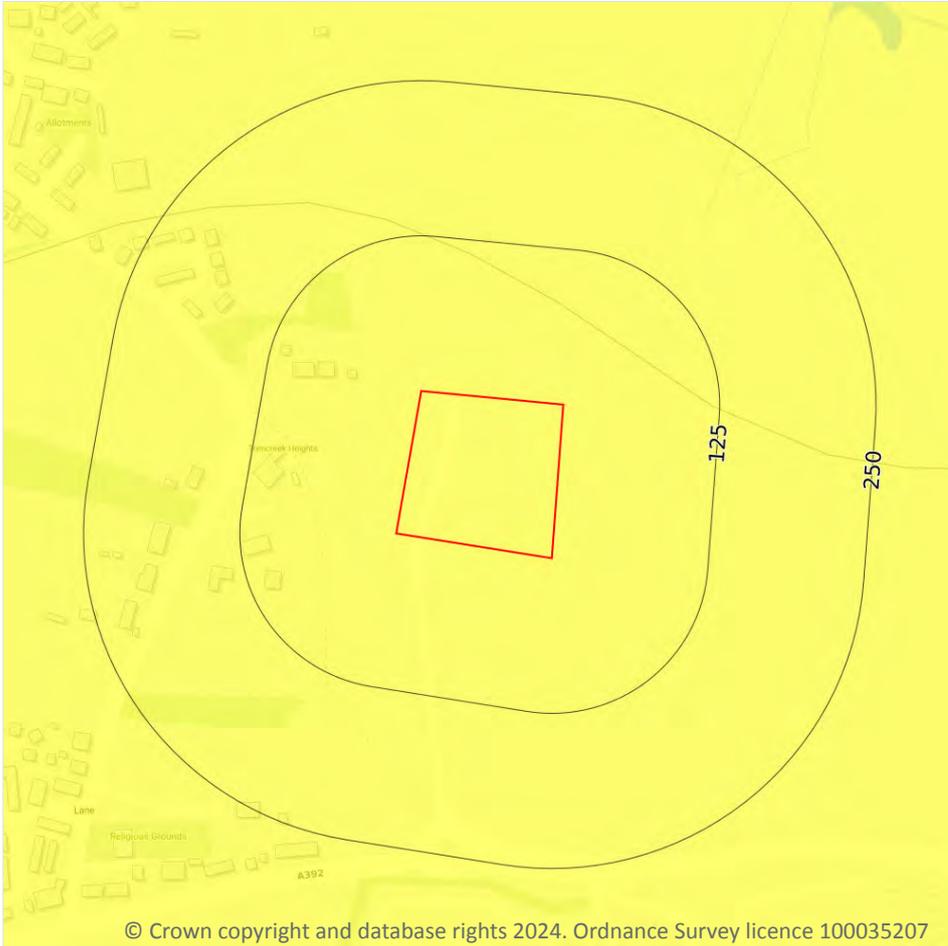
0

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m

1

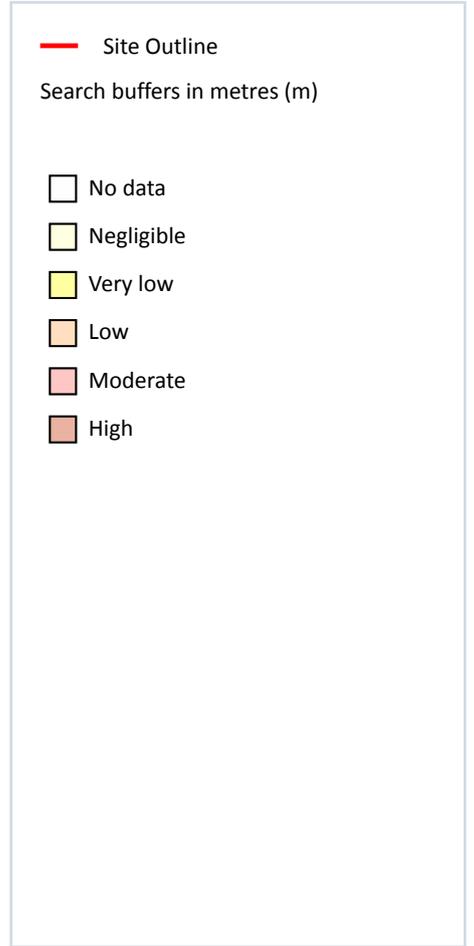
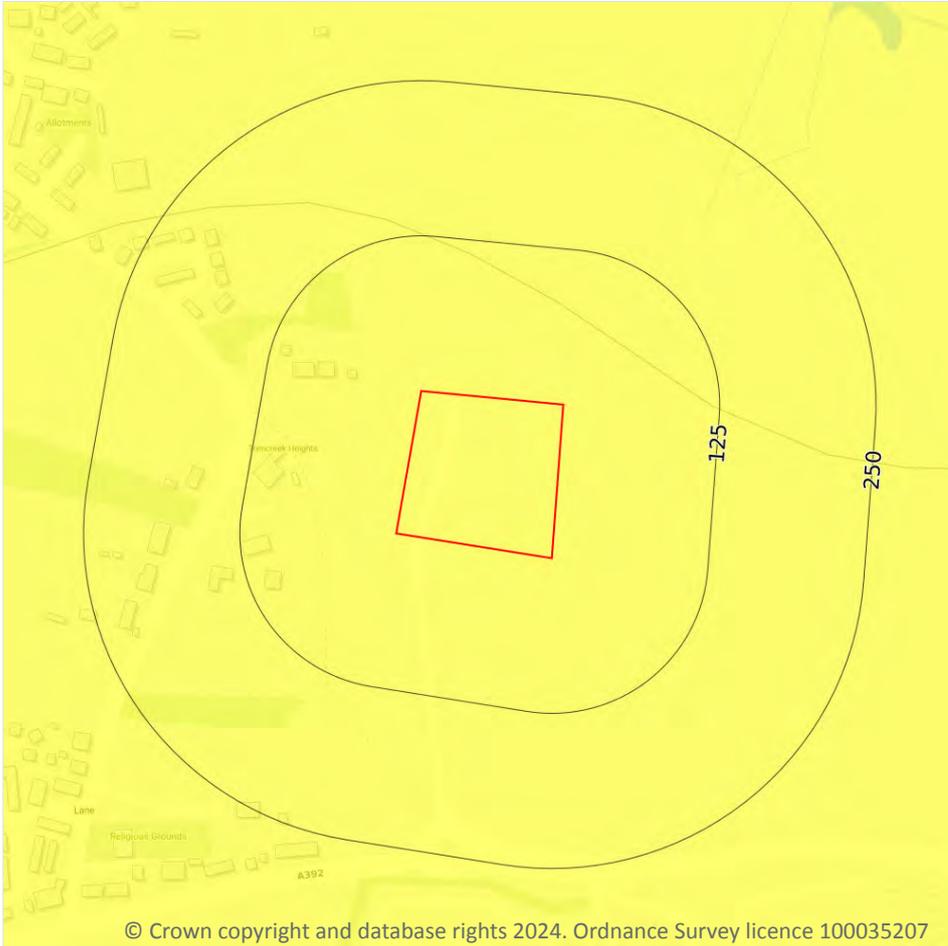
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 78 >](#)

Location	Hazard rating	Details
On site	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



17.2 Running sands

Records within 50m

1

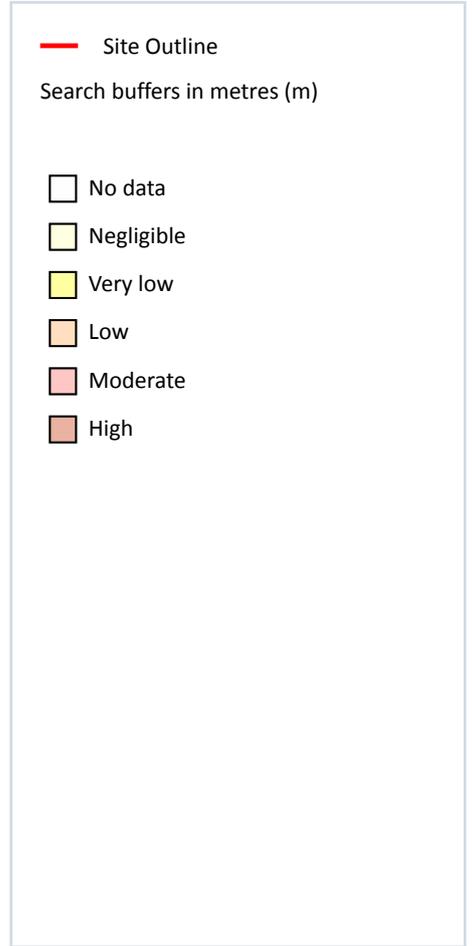
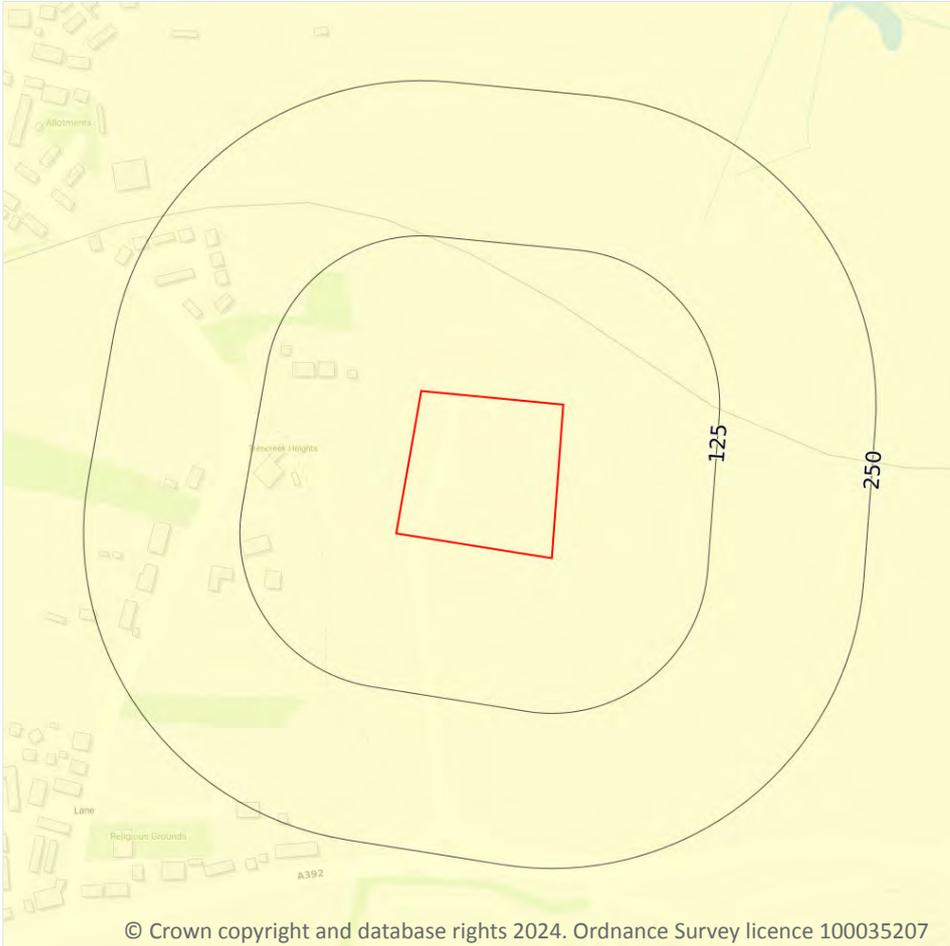
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on [page 79 >](#)

Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



17.3 Compressible deposits

Records within 50m

1

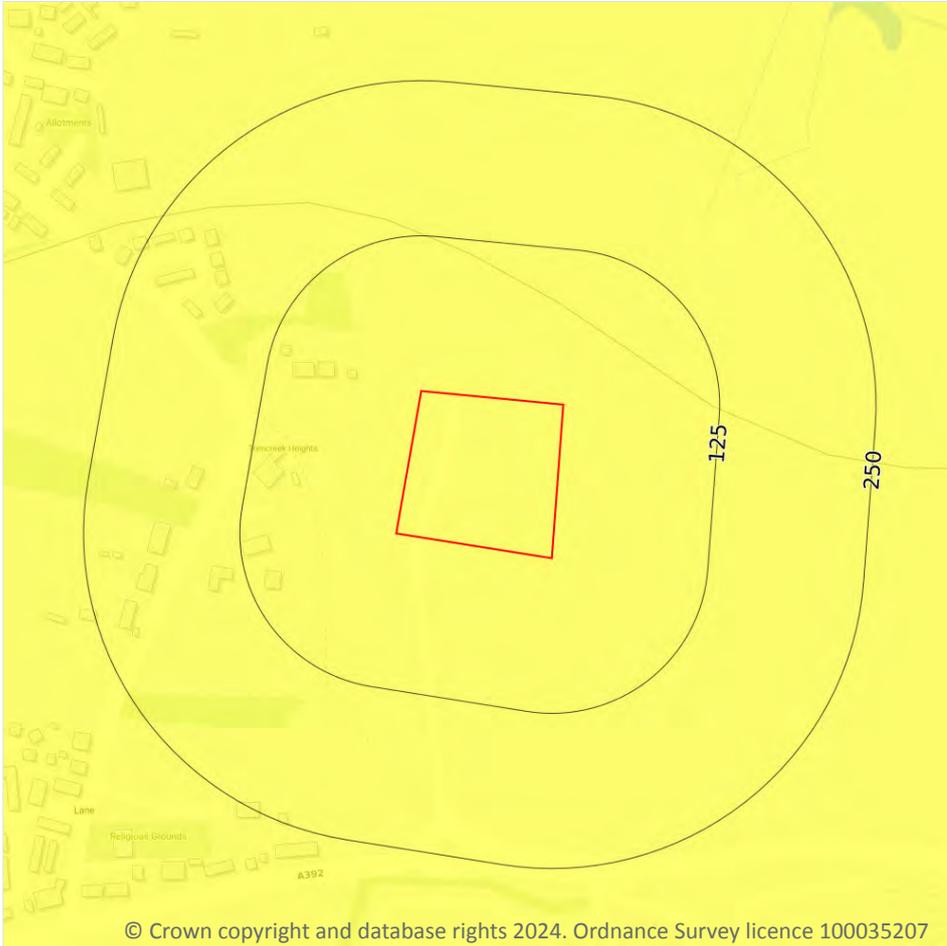
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 80 >](#)

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.4 Collapsible deposits

Records within 50m

1

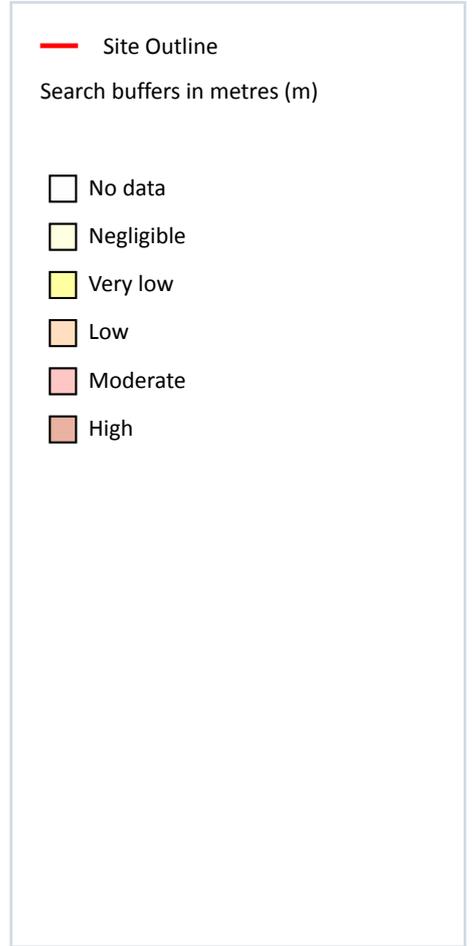
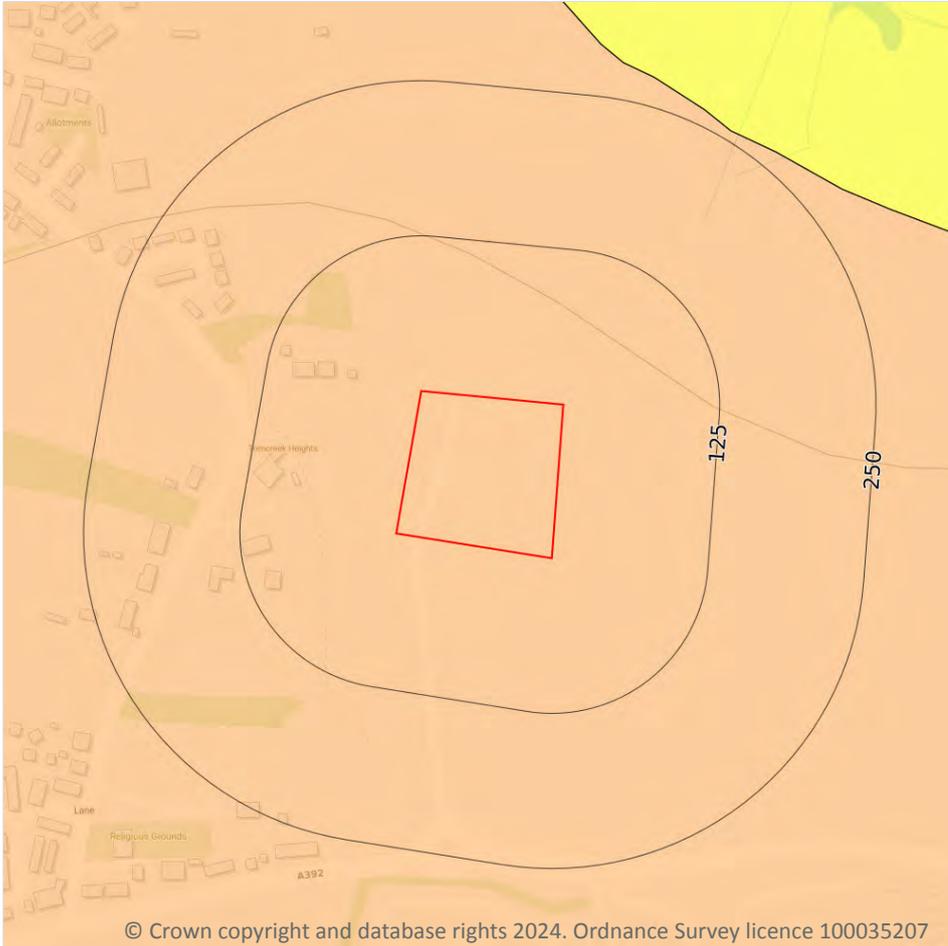
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 81 >](#)

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



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17.5 Landslides

Records within 50m

1

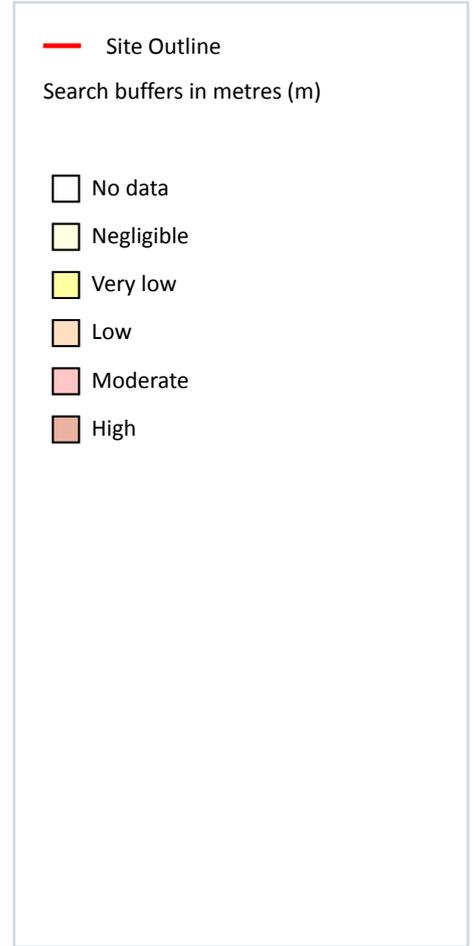
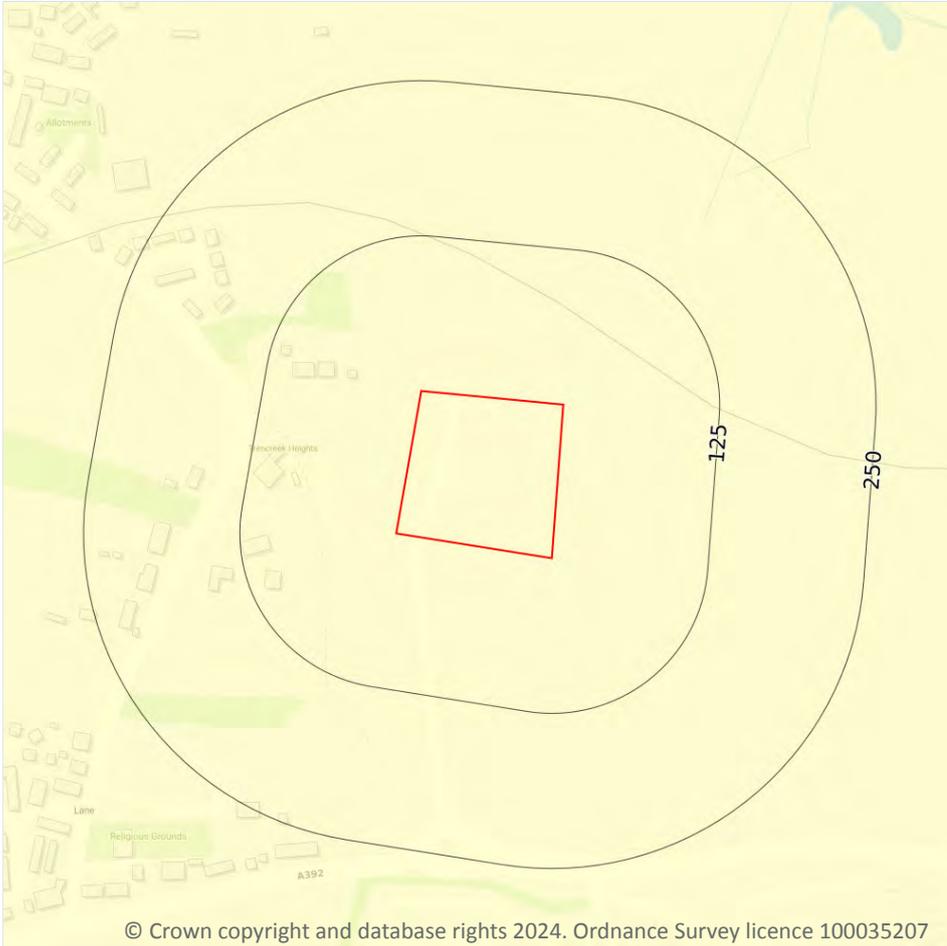
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on [page 82 >](#)

Location	Hazard rating	Details
On site	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



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17.6 Ground dissolution of soluble rocks

Records within 50m

1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 83](#)

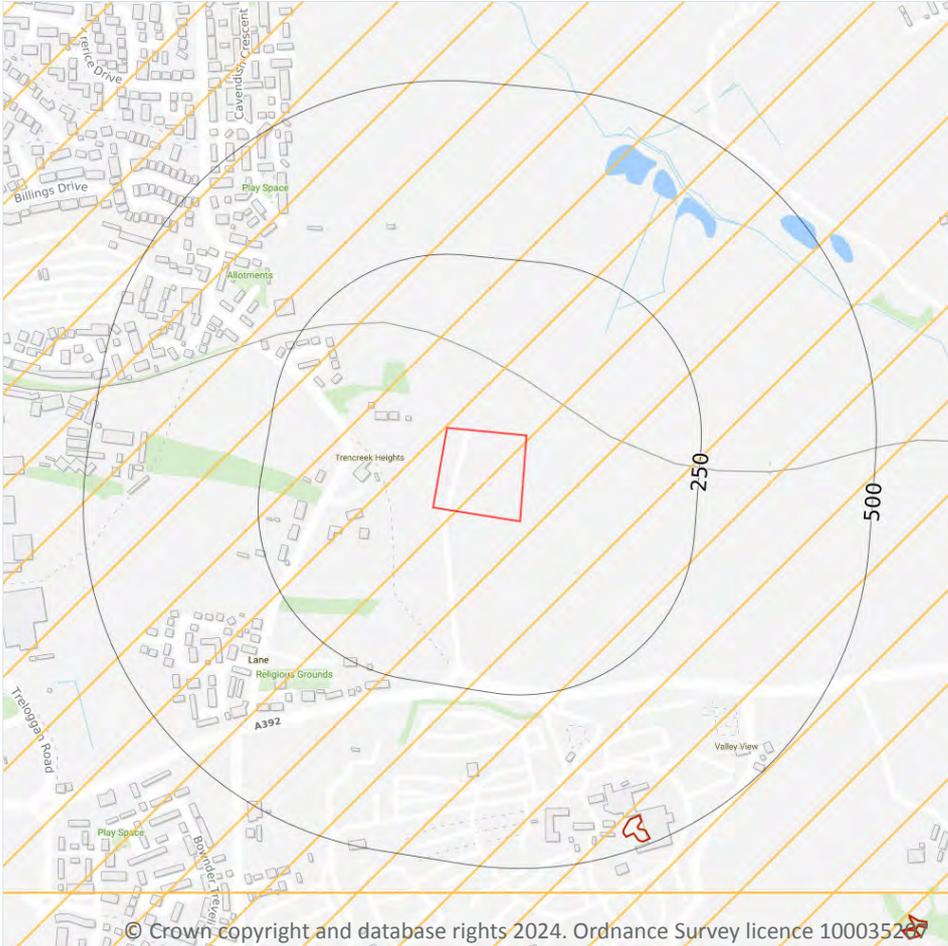
>

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.

This data is sourced from the British Geological Survey.



18 Mining and ground workings



18.1 BritPits

Records within 500m

0

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m

0

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

This data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m

0

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m

0

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

3

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

Features are displayed on the Mining and ground workings map on [page 85 >](#)



ID	Location	Name	Commodity	Class	Likelihood
1	On site	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
3	535m S	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	777m E	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site

0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m

0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, 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 prior to any re-use.

This data is sourced from The Coal Authority.



18.9 Researched mining

Records within 500m

6

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

Location	Mineral type
145m E	Metals
283m NE	Metals
368m NE	Metals
425m NW	Metals
477m SW	Metals
478m SW	Metals

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m

0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m

0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.



18.12 Coal mining

Records on site 0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site 0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.14 Gypsum areas

Records on site 0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site 1

Generalised areas that may be affected by historical tin mining.

Location	Details
On site	The site is within an area where tin mining is reported to have occurred. This does not mean that the site is definitely directly affected but further consideration of tin mining is advised. Further mining searches are available at Groundsure.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site 0

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).



19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.

19.5 National karst database

Records within 500m

0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

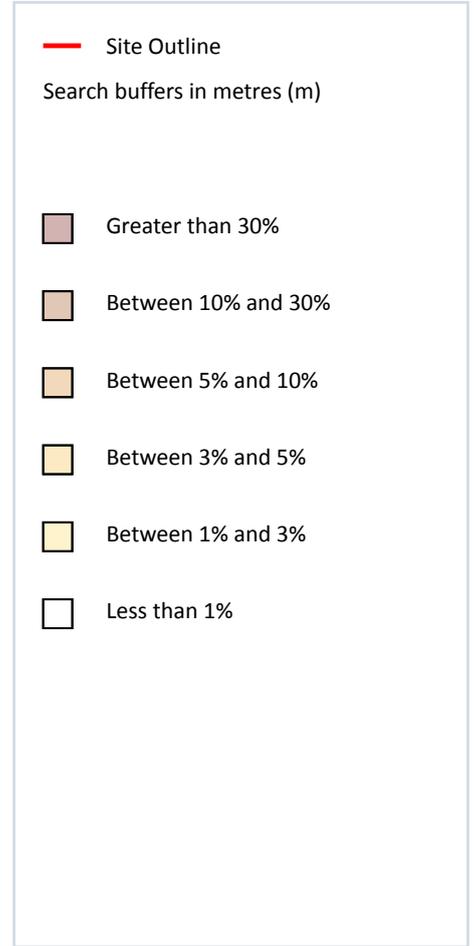
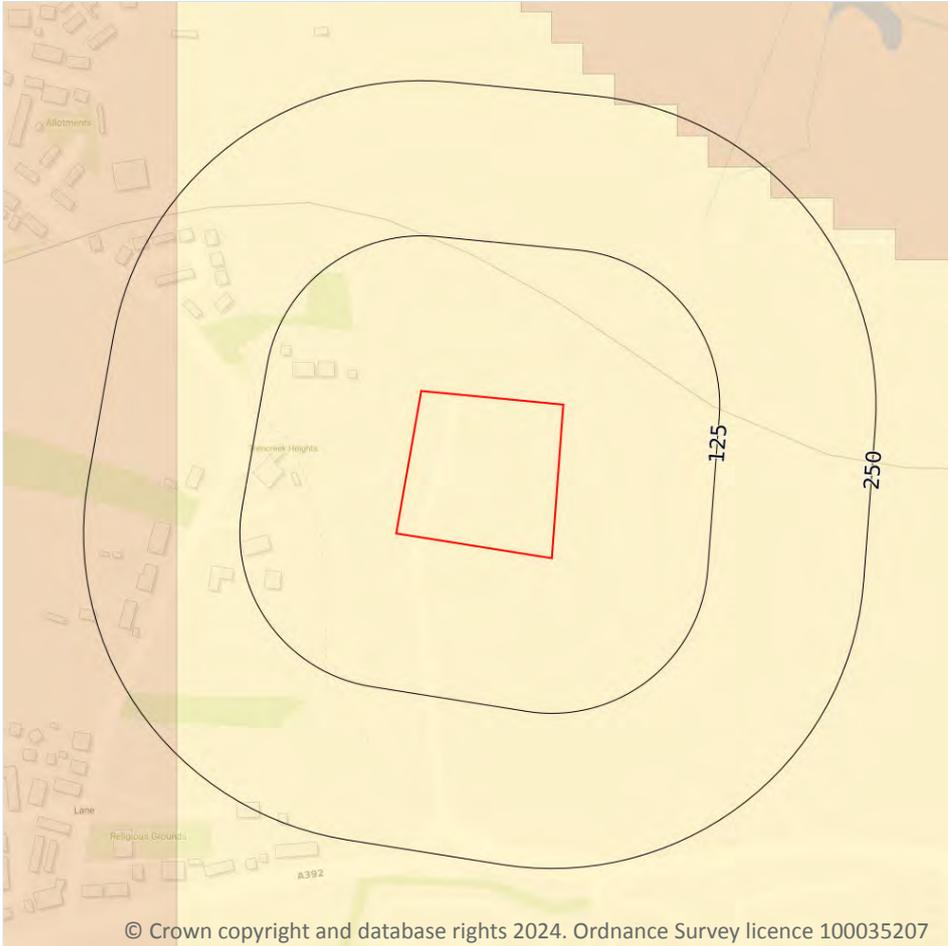
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.



20 Radon



20.1 Radon

Records on site

1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on [page 92 >](#)

Location	Estimated properties affected	Radon Protection Measures required
On site	Between 1% and 3%	None

This data is sourced from the British Geological Survey and UK Health Security Agency.



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

2

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	25 - 35 mg/kg	4 - 5 mg/kg	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
35m SE	25 - 35 mg/kg	4 - 5 mg/kg	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

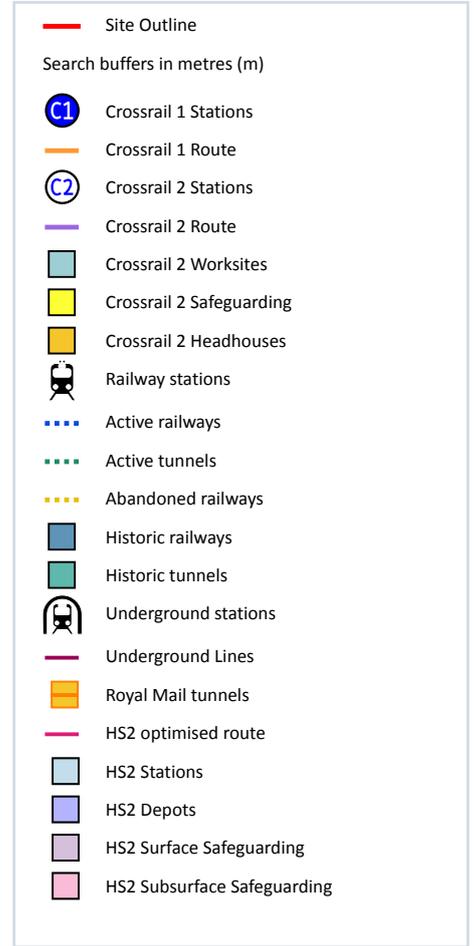
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The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects



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22.1 Underground railways (London)

Records within 250m

0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m

0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m

0

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m

0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m

0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m

2

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

Features are displayed on the Railway infrastructure and projects map on [page 95](#) >



Location	Name	Type
64m NE	The Atlantic Coast Line	rail
66m NE	Not given	Single Track

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

Records within 500m

0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m

0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m

0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.



Data providers

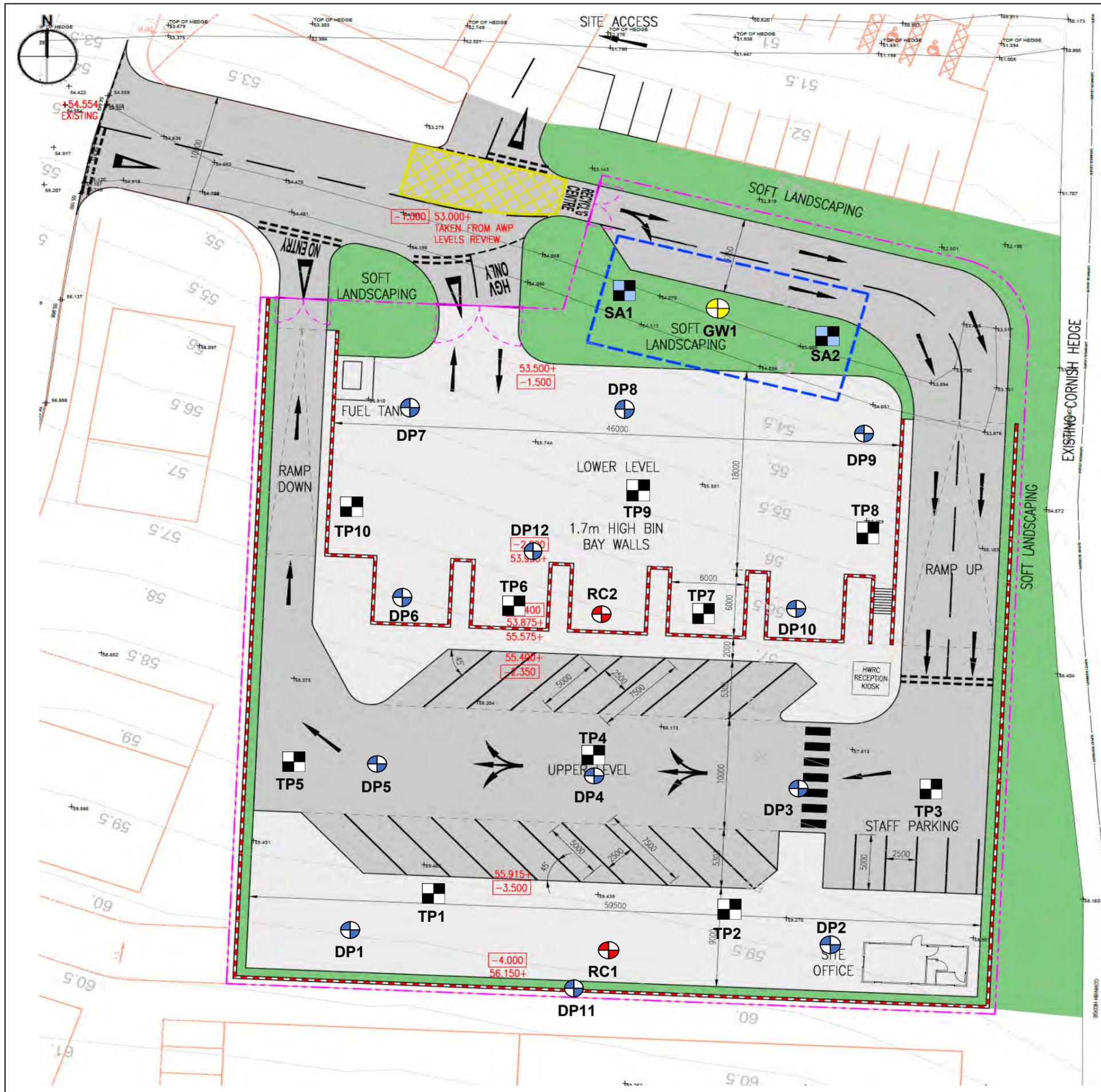
Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see <https://www.groundsure.com/sources-reference> ↗.

Terms and conditions

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



D Exploratory Hole Plan



Hole Locations Approximate. Sizes exaggerated for clarity.

Key

-  Machine Excavated Trial Pit
-  Machine Excavated Trial Pit & Soakaway Test
-  Rotary cored borehole - 12m
-  Rotary open hole borehole and GW well - 8m
-  Dynamic Probe

clarkebond

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Bristol Exeter London

Client

Suez Recycling and Recovery UK Ltd

Project

Newquay HWRC

Drawing Title

Exploratory Hole Location Plan

Purpose of Issue

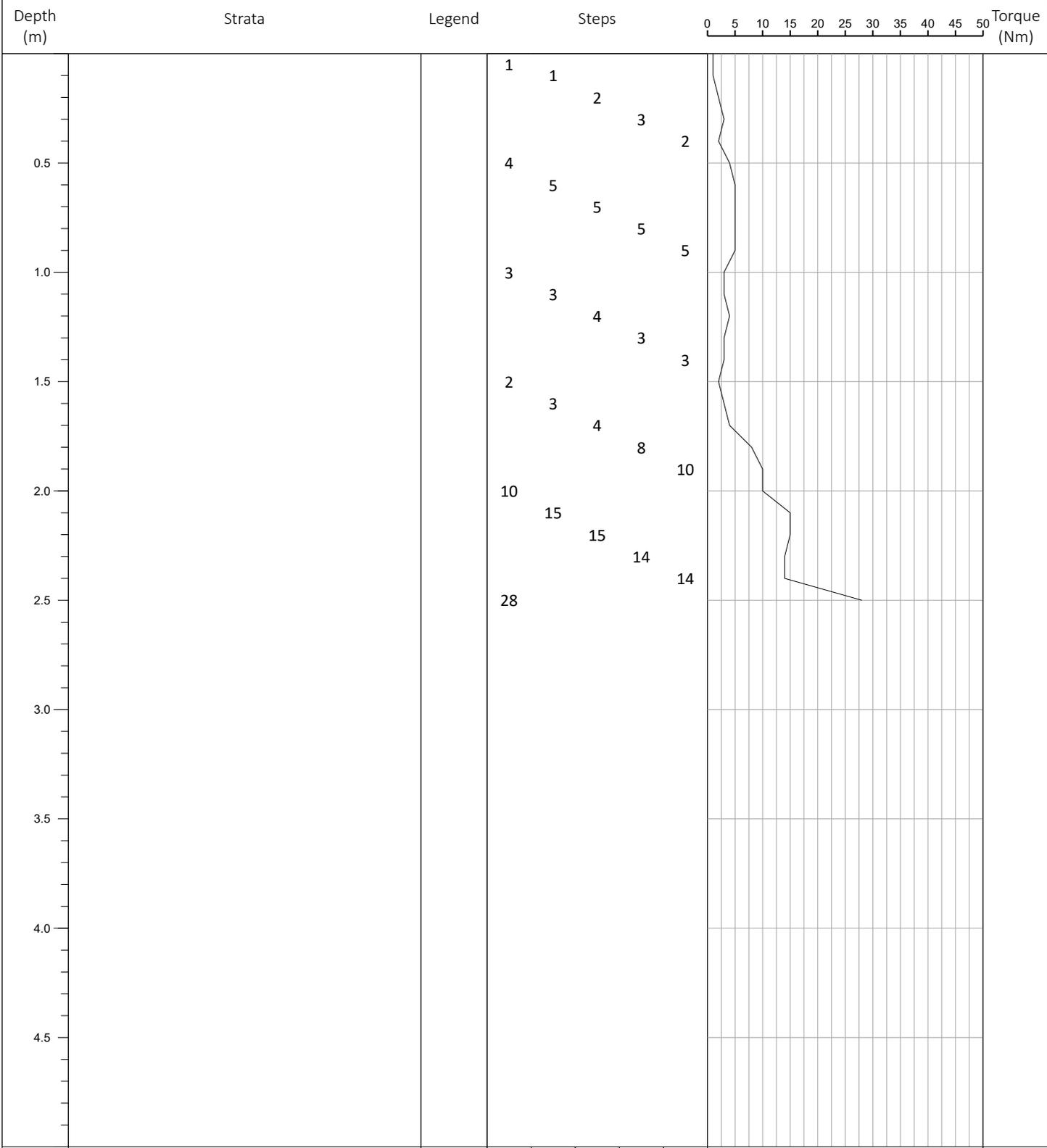
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E06494		S2				
Project	Originator	Volume	Level	Type	Role	Dwg No.
E06494	CLK	XX	XX	DR	GT	001
Scale		Date		Revision		
N/A		09/04/2024		P1		
Drawn	Checked	Sheet Size				
TT		A3				

E Exploratory Hole Logs

Project Name: Newquay HWRC	Co-Ordinates: 183274.00 E60584.00 N	Start: 05/04/2024
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Project Number: E06494	Ground Level:	End: 05/04/2024
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Remarks:	Logged By:
	Approved By: TT
	Sheet 1 of 1

Dynamic Probe Log

Project Name: Newquay HWRC

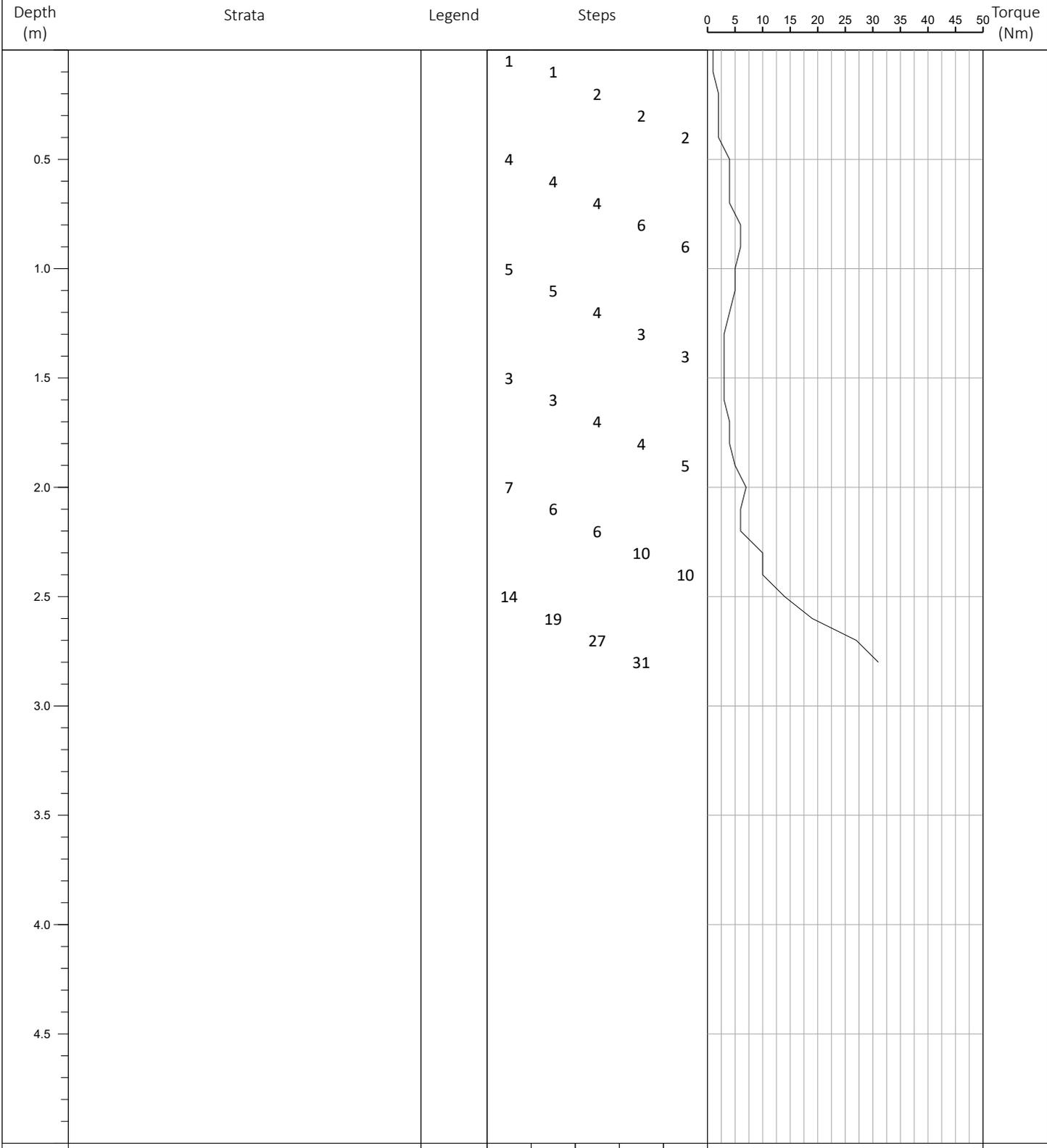
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Project Number: E06494

Ground Level:

End: 05/04/2024

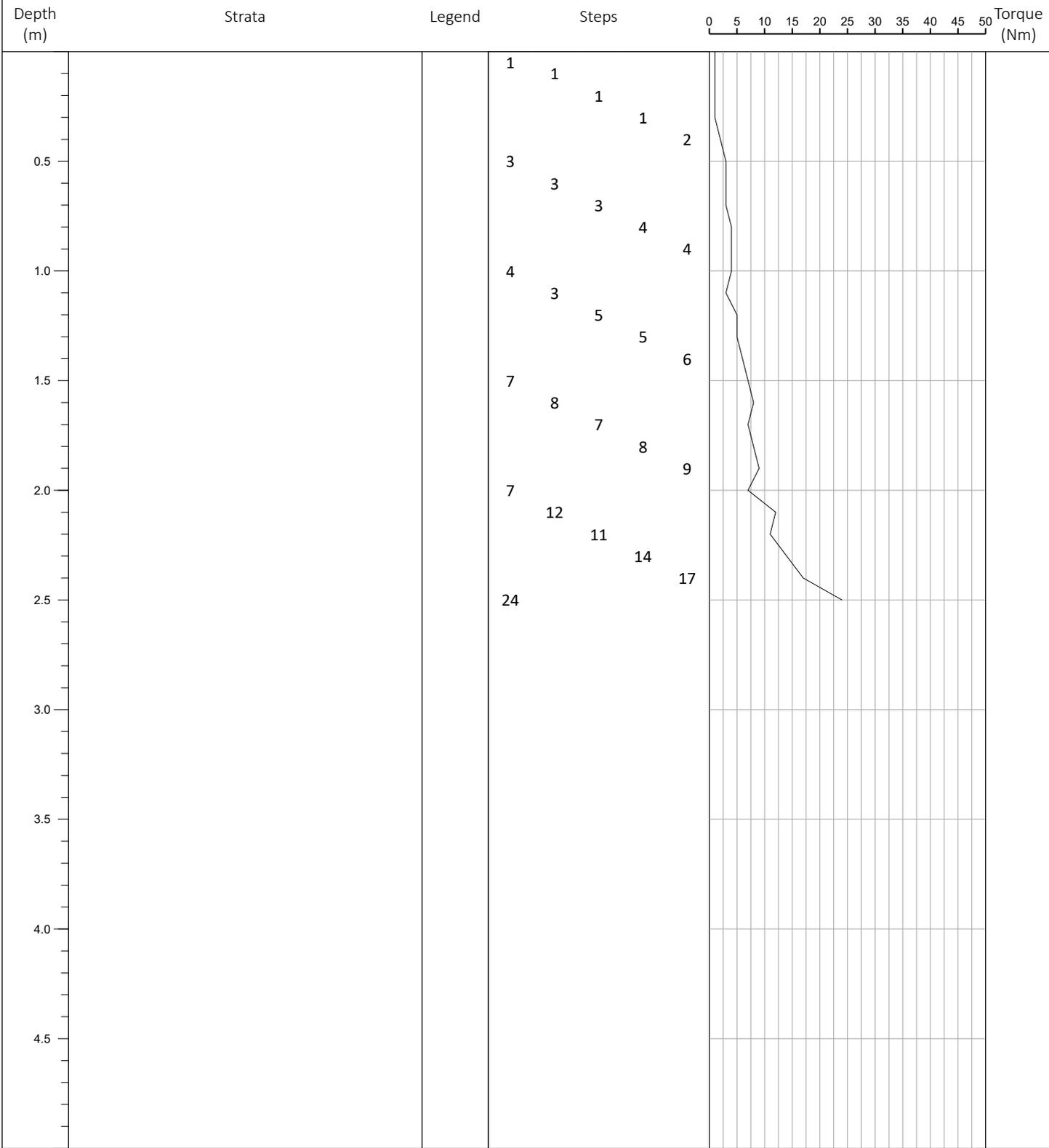


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Logged By:
 Approved By:
 TT
 Sheet 1 of 1

Project Name: Newquay HWRC	Co-Ordinates: 183309.00 E60599.00 N	Start: 05/04/2024
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Project Number: E06494	Ground Level:	End: 05/04/2024
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Remarks:	Logged By: Approved By: TT Sheet 1 of 1
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Dynamic Probe Log

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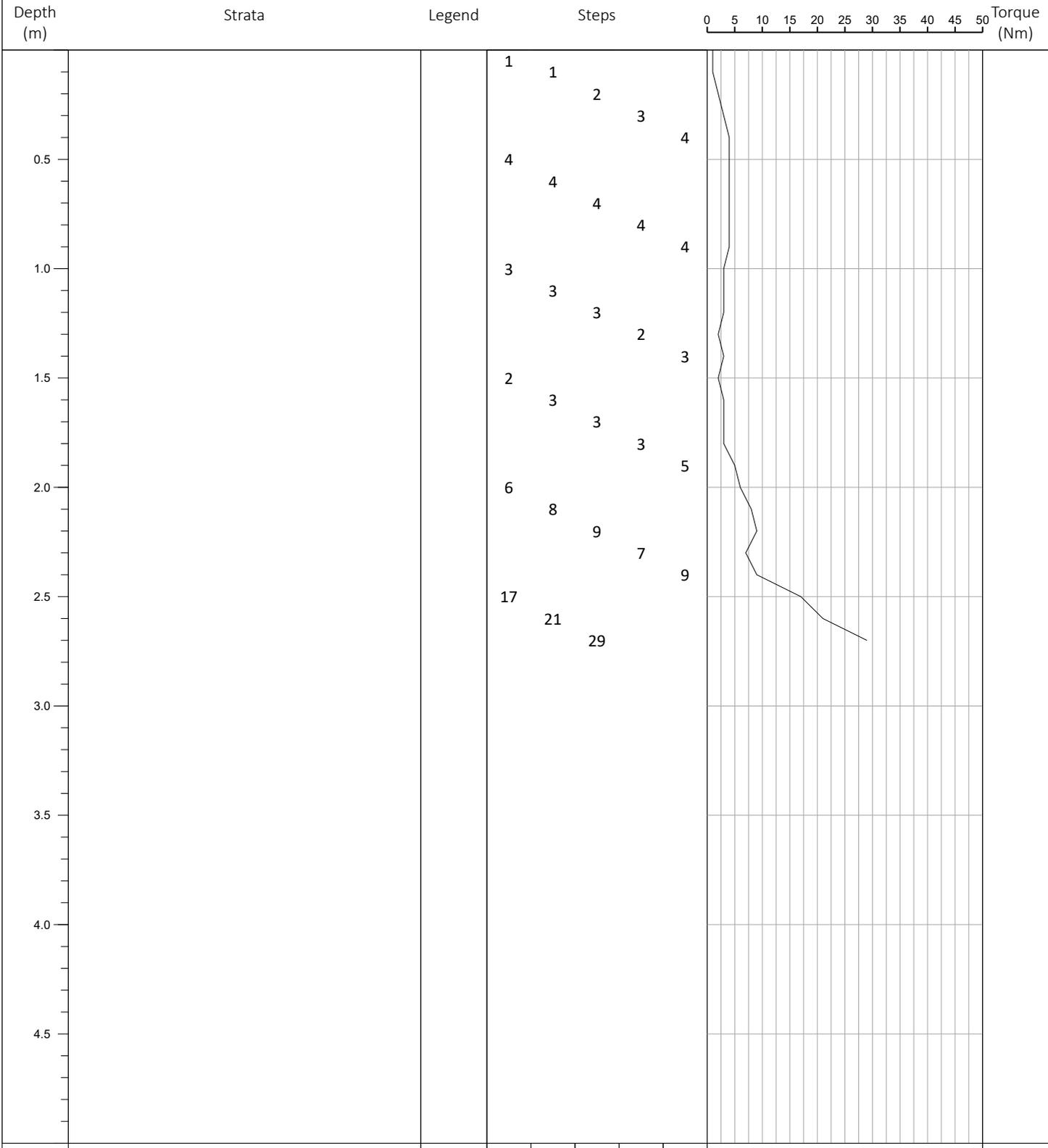
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Start: 05/04/2024

Project Number: E06494

Ground Level:

End: 05/04/2024



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Logged By:
 Approved By:
 TT
 Sheet 1 of 1

Dynamic Probe Log

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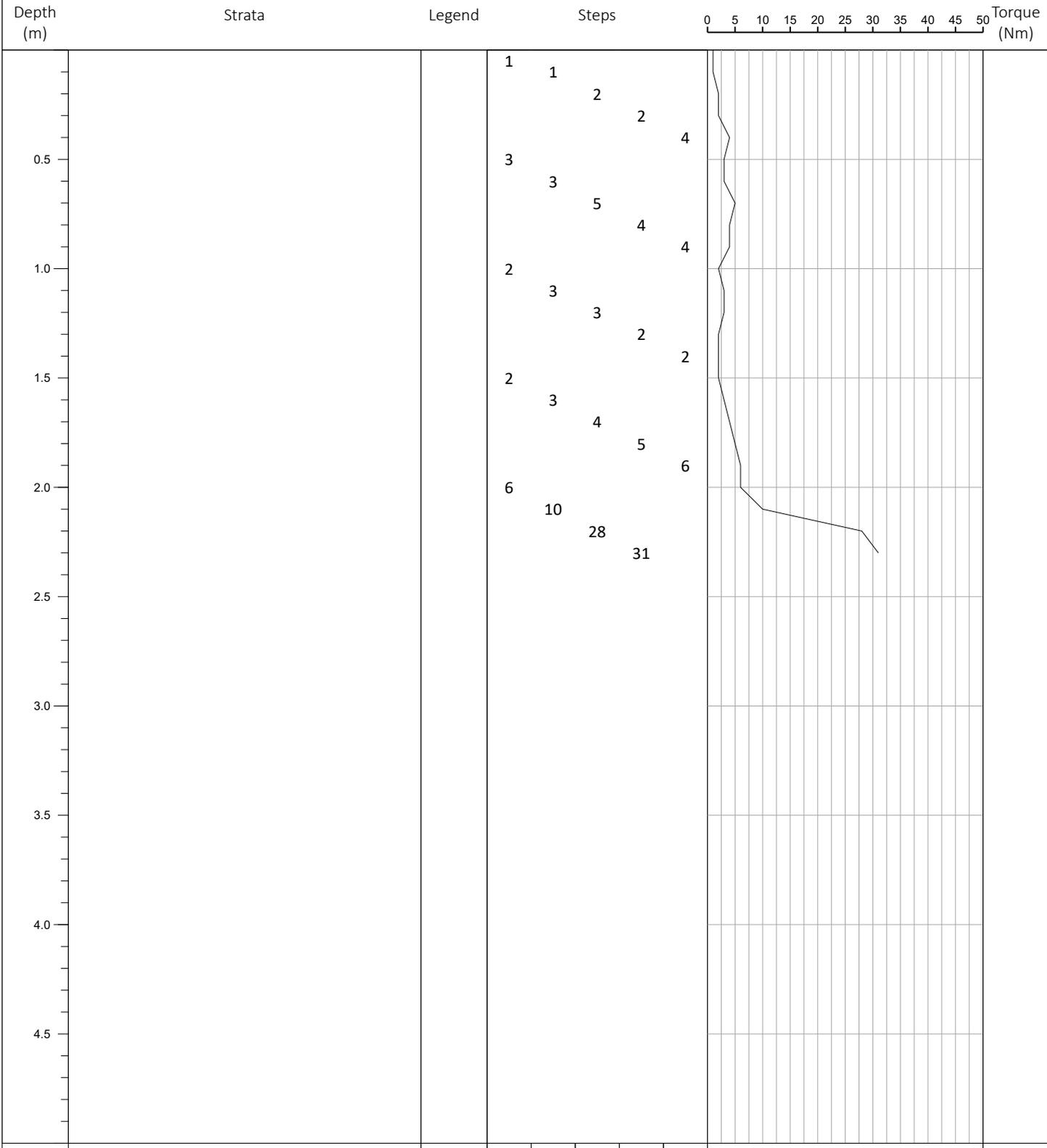
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Start: 05/04/2024

Project Number: E06494

Ground Level:

End: 05/04/2024



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Approved By:
TT
Sheet 1 of 1

Dynamic Probe Log

Project Name: Newquay HWRC

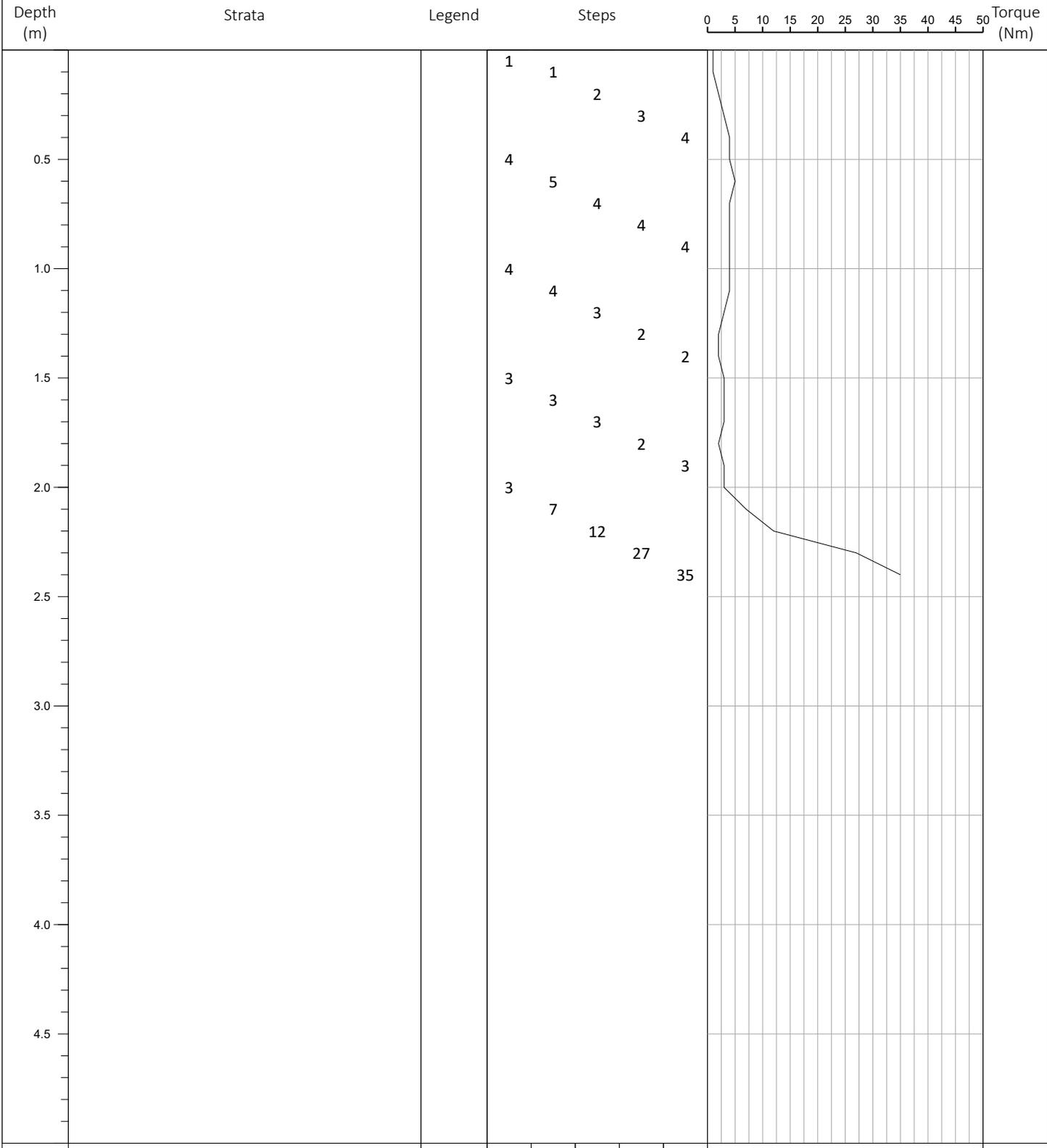
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Start: 05/04/2024

Project Number: E06494

Ground Level:

End: 05/04/2024



Remarks:

Logged By:
 Approved By:
 TT
 Sheet 1 of 1



Dynamic Probe Log

Probe No.: **DP07**

Project Name: Newquay HWRC

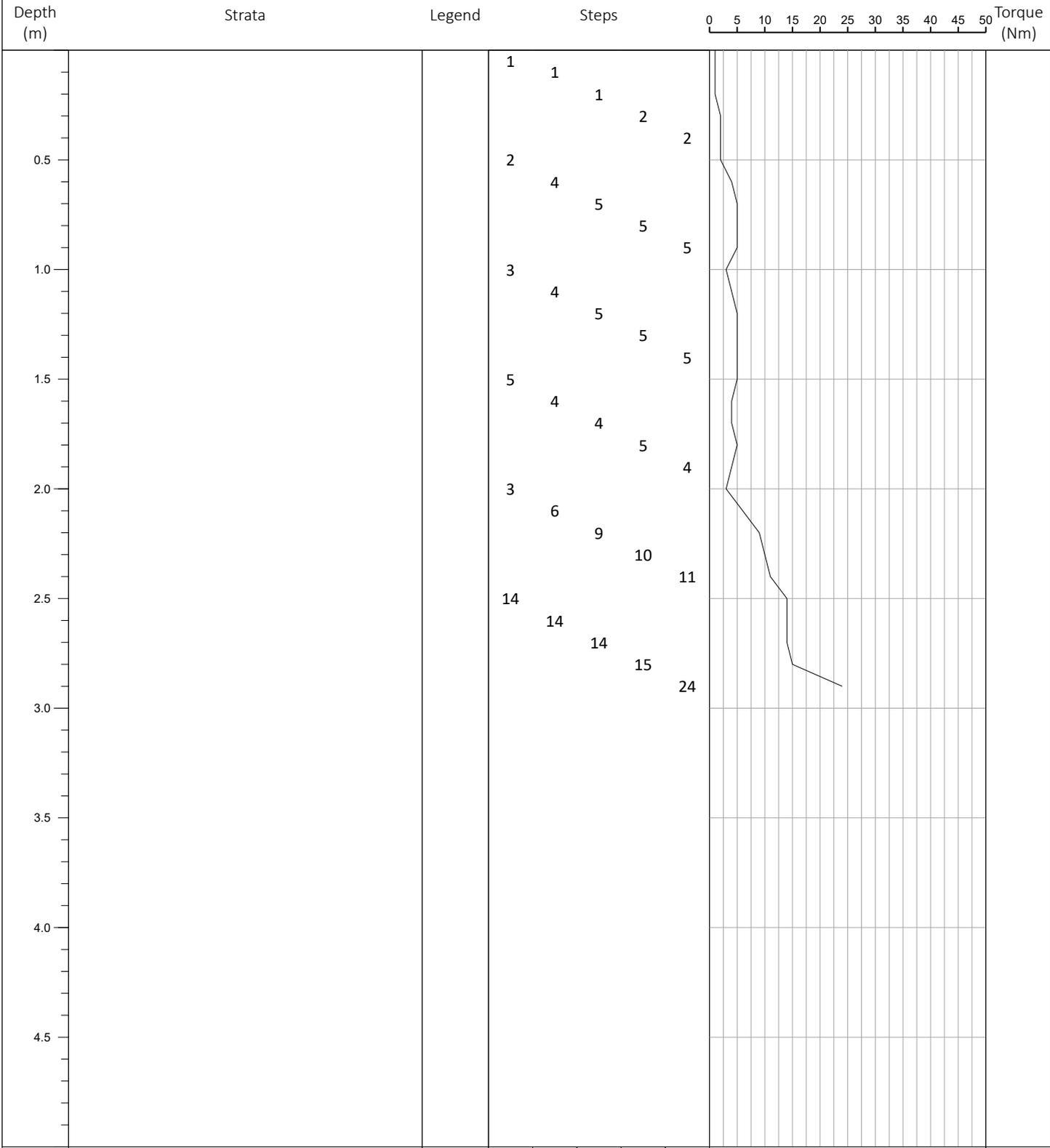
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Start: 05/04/2024

Project Number: E06494

Ground Level:

End: 05/04/2024



Remarks:

Logged By:

Approved By:
TT

Sheet 1 of 1

Dynamic Probe Log

Project Name: Newquay HWRC

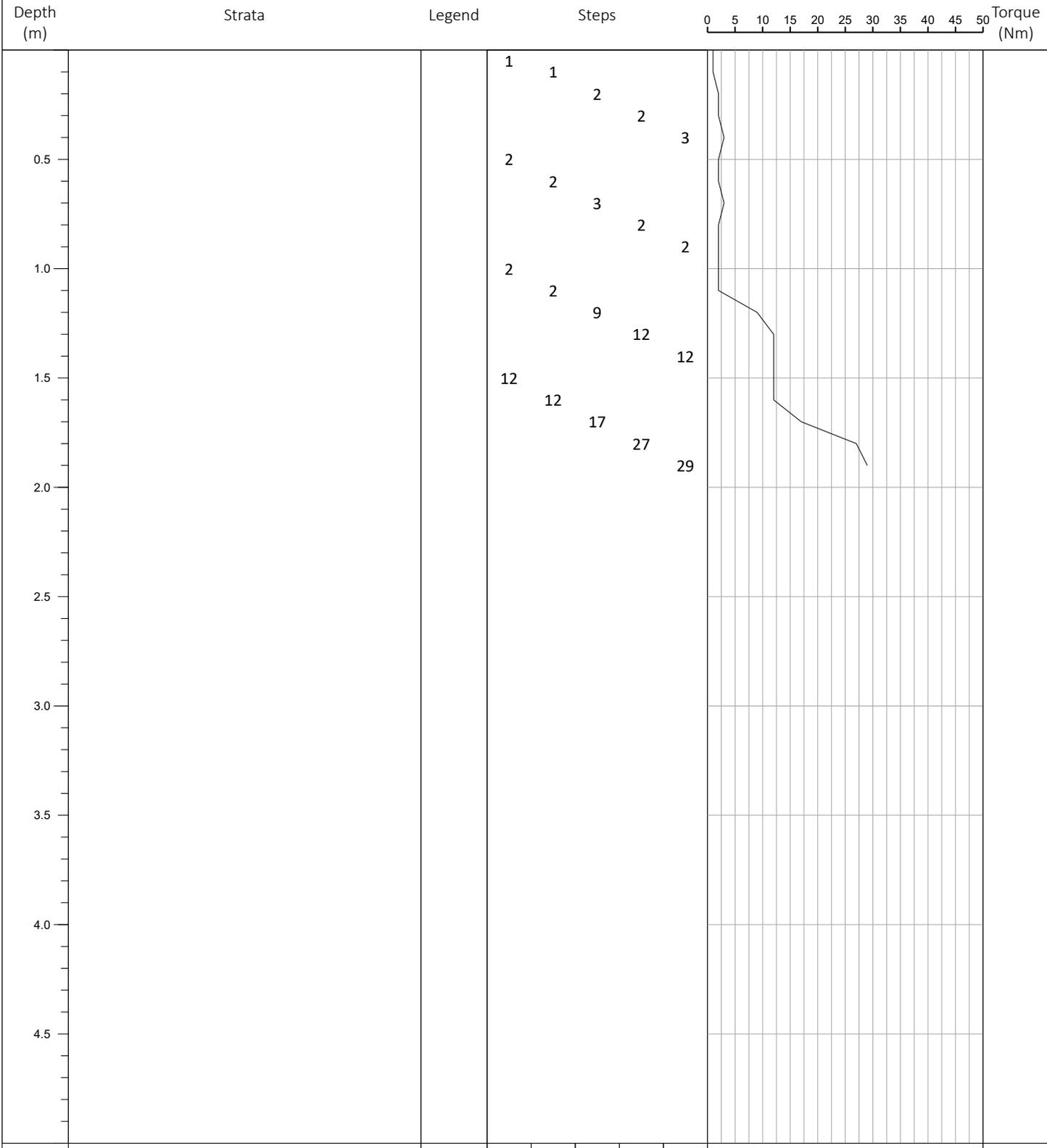
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Start: 05/04/2024

Project Number: E06494

Ground Level:

End: 05/04/2024



Remarks:

Logged By:
 Approved By:
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Project Name: Newquay HWRC

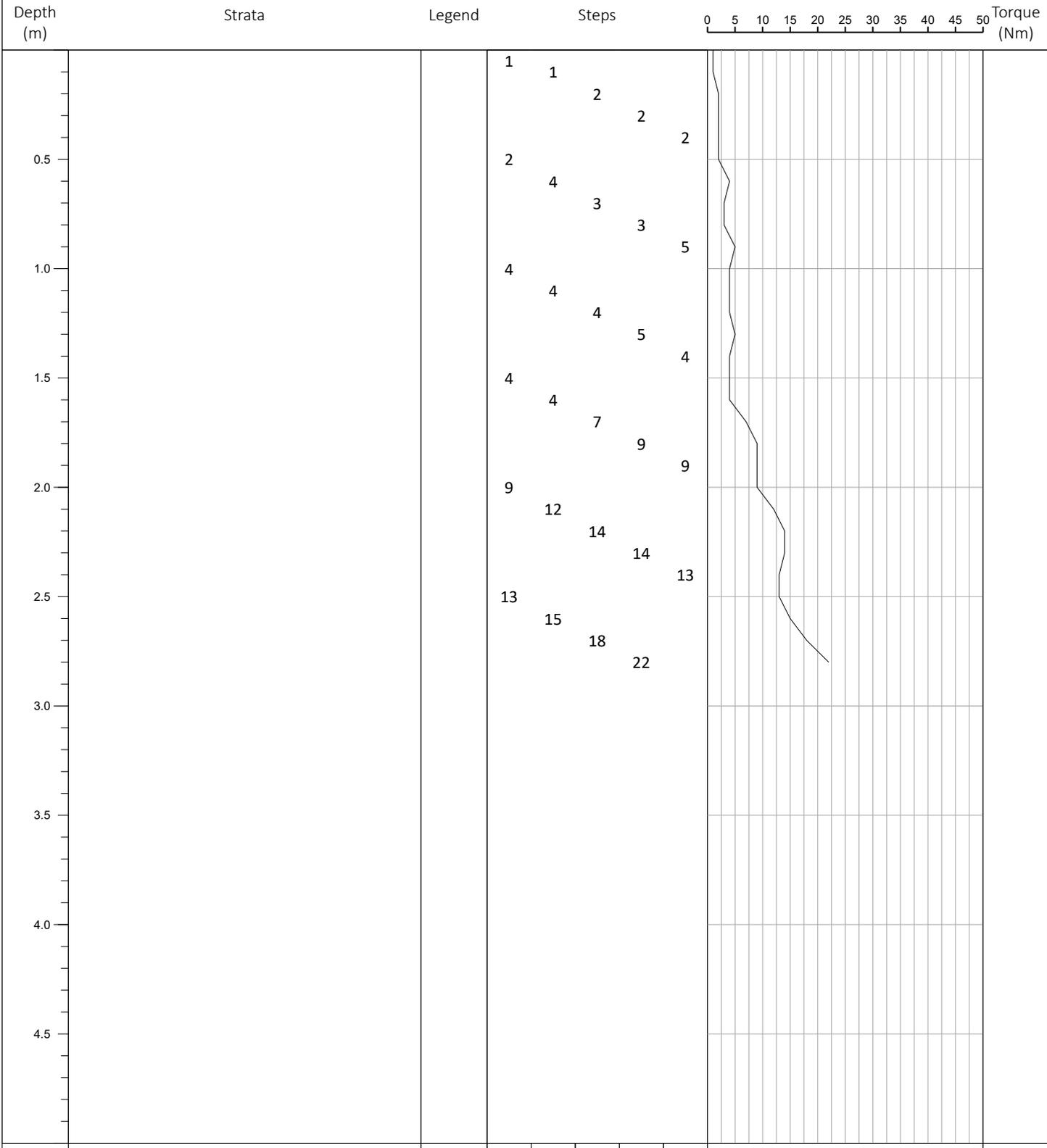
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Start: 05/04/2024

Project Number: E06494

Ground Level:

End: 05/04/2024



Remarks:

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Approved By:
TT
Sheet 1 of 1

Dynamic Probe Log

Project Name: Newquay HWRC

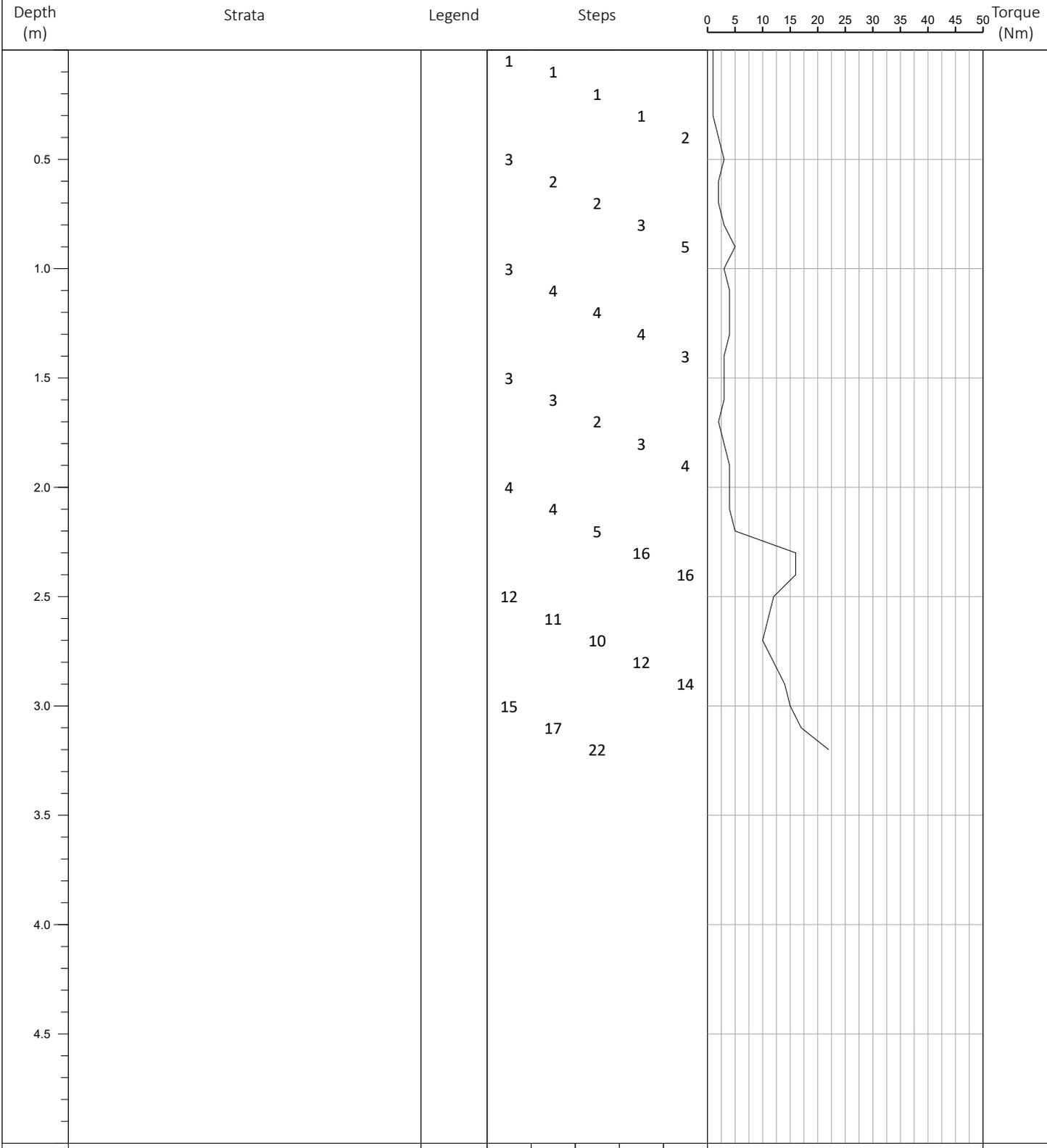
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Start: 05/04/2024

Project Number: E06494

Ground Level:

End: 05/04/2024



Remarks:

Logged By:
Approved By:
TT
Sheet 1 of 1

Dynamic Probe Log

Project Name: Newquay HWRC

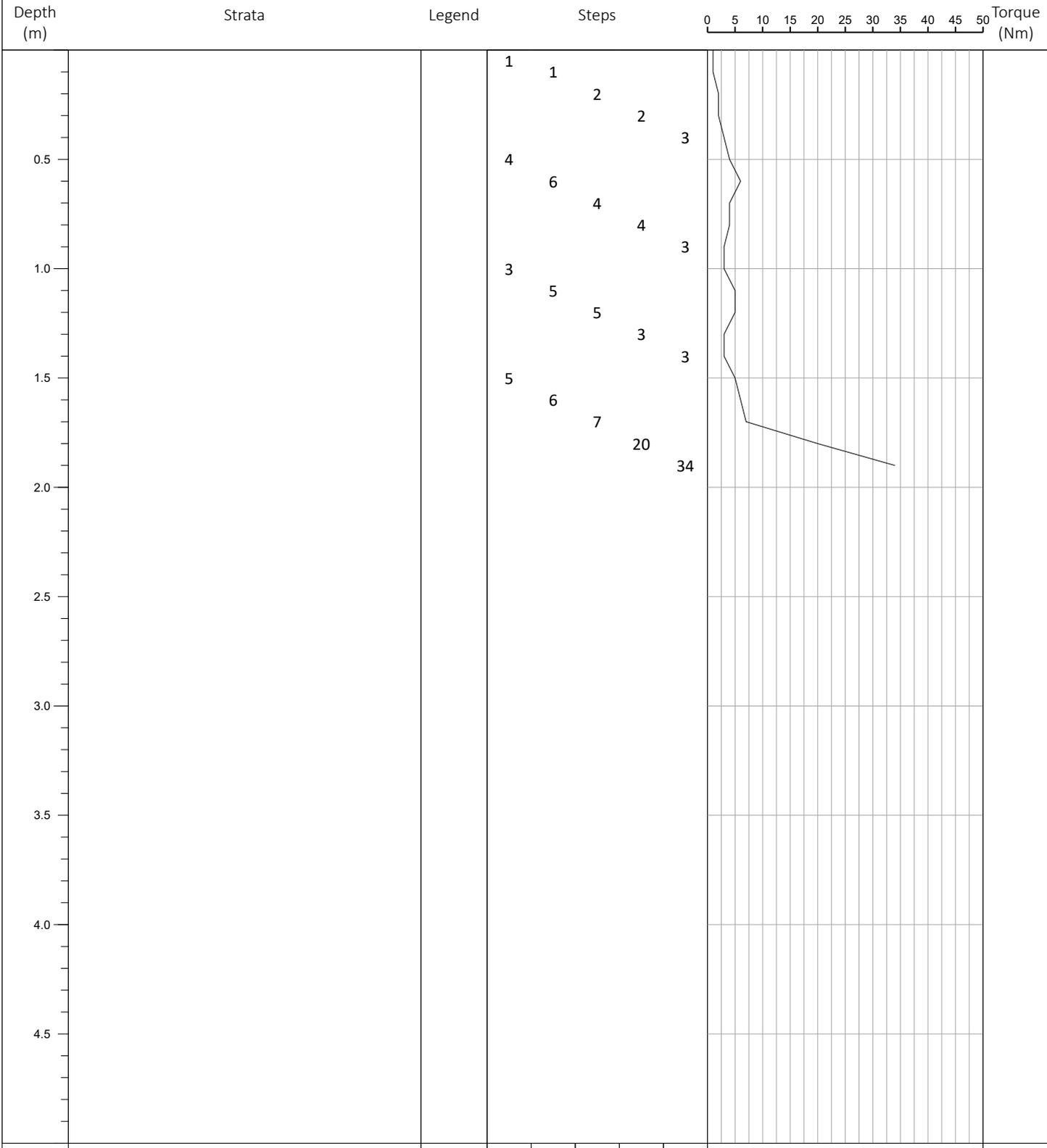
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Start: 05/04/2024

Project Number: E06494

Ground Level:

End: 05/04/2024



Remarks:

Logged By:
 Approved By: TT
 Sheet 1 of 1



Dynamic Probe Log

Probe No.:
DP12

Project Name: Newquay HWRC

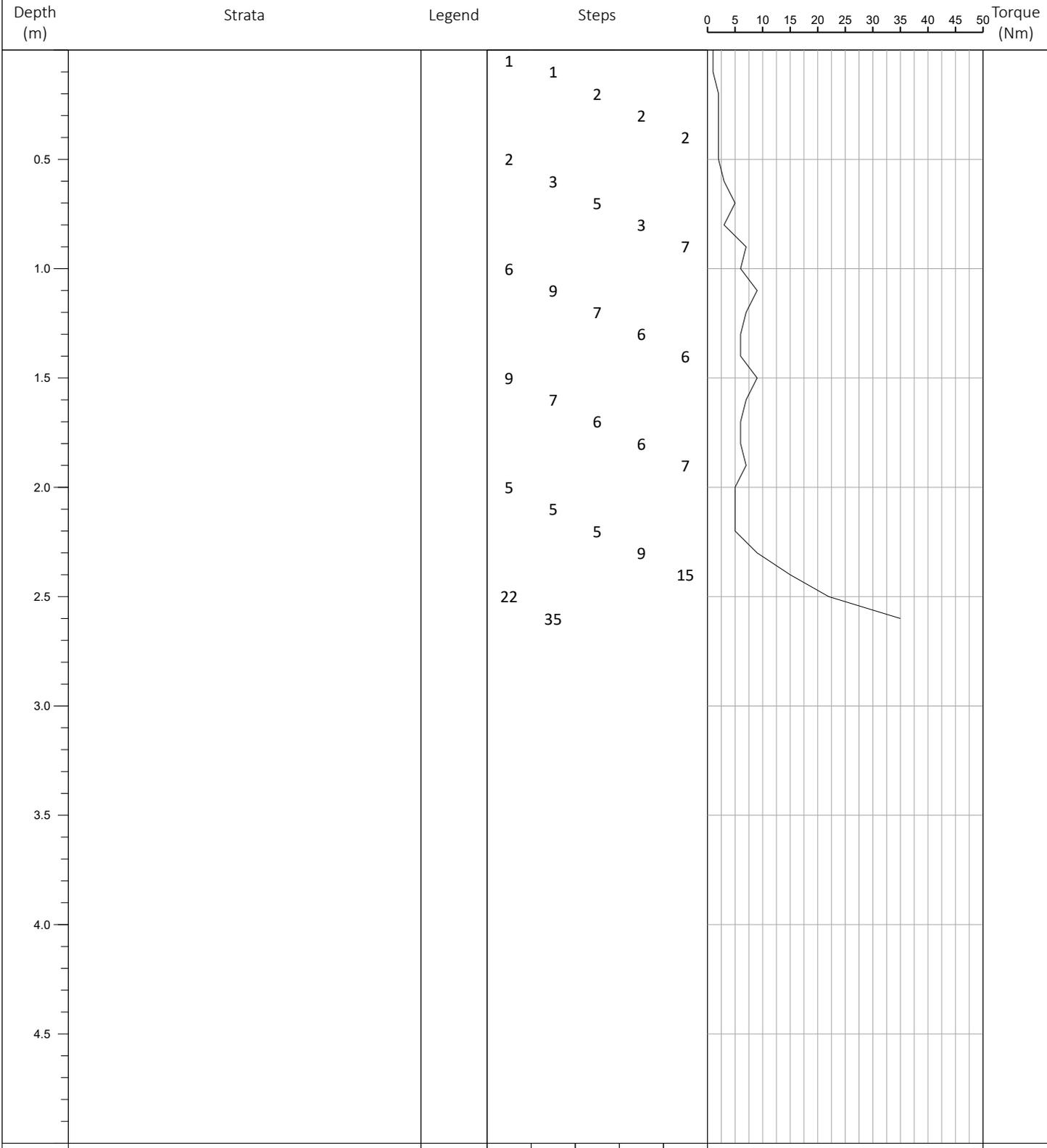
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Start: 05/04/2024

Project Number: E06494

Ground Level:

End: 05/04/2024



Remarks:

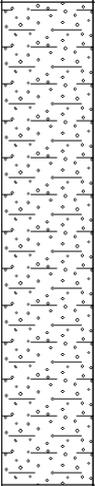
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Approved By:
TT

Sheet 1 of 1

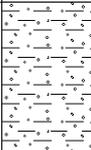
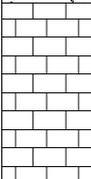
clarkebond		Rotary Core Borehole Log										Borehole No.: RC01			
Project Name: Newquay HWRC					Co-Ordinates: 183293.00 E 60584.00 N					Start: 04/04/2024					
Project Number: E06494					Ground Level:					End: 05/04/2024					
Samples/Testing		Coring				F.I.	Depth	Level	Legend	Stratum Description	Water Strike	Well			
Depth (m) [Level (mOD)]	Type/ Result	Run	TCR	SCR	RQD										
										Firm to stiff pale grey and brown gravelly CLAY. Gravel is fine to coarse angular mudstone. (RESIDUAL SOIL)	0.5				
						1.00				Extremely weak very thinly to thinly bedded very closely fissured grey brown MUDSTONE, recovered as angular gravel sized fragments. (WEATHERED BOVISAND FORMATION)	1.0				
		2.20m - 3.70m	83	73	52		2.20			Very weak greenish grey MUDSTONE. Locally dark grey with quartz veins. Fractures: Dominant 45-70 tight planar brown stained. Subordinate subvertical locally infilled. (BOVISAND FORMATION)	2.0				
		3.70m - 5.20m	100	100	73	4.52					2.5				
		5.20m - 6.70m	100	93	93						3.0				
		6.70m - 8.30m	75	69	56	3					3.5				
		8.30m - 9.80m	100	73	73	3.64	8.00			Extremely weak greenish grey MUDSTONE. Fractures: Dominant 45-70 tight planar brown stained. Subordinate subvertical locally infilled. (BOVISAND FORMATION)	4.0				
											4.5				
											5.0				
							9.80				5.5				
Drilling Flush Details										Water Strikes		General Remarks:		Logged By: TT	
Depth Top (m)	Depth Base (m)	Flush Type	Flush Return	Depth Struck (m)	Casing (m)	Depth Sealed (m)	Remarks					Approved By: TT			
												Scale: 1:50			
Method/Plant Used: Conaccio 205												Sheet 1 of 1			

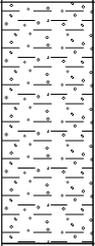
clarkebond		Rotary Core Borehole Log										Borehole No.: RC02	
Project Name: Newquay HWRC					Co-Ordinates: 183294.00 E 60616.00 N					Start: 05/04/2024			
Project Number: E06494					Ground Level:					End: 05/04/2024			
Samples/Testing		Coring				F.I.	Depth	Level	Legend	Stratum Description	Water Strike	Well	
Depth (m) [Level (mOD)]	Type/ Result	Run	TCR	SCR	RQD								
										Firm to stiff grey brown gravelly CLAY. (RESIDUAL SOIL)	0.5		
						1.10				Grey brown clayey GRAVEL. Gravel is fine to coarse angular mudstone. (WEATHERED BOVISAND FORMATION)	1.0		
						2.40					1.5		
		2.40m - 3.90m	97	80	53	3.00				Extremely weak greenish grey MUDSTONE. Locally dark grey with quartz veins. Fractures: Dominant 45-70° tight planar brown stained. Subordinate subvertical locally infilled. (BOVISAND FORMATION)	2.0		
											2.5		
											3.0		
		3.90m - 5.50m	94	78	78	4.86				Very weak greenish grey MUDSTONE. Fractures: Dominant 45-70° tight planar brown stained. Subordinate subvertical locally infilled. (BOVISAND FORMATION)	3.5		
											4.0		
											4.5		
		5.50m - 7.00m	93	90	85						5.0		
											5.5		
											6.0		
											6.5		
											7.0		
		7.00m - 8.50m	100	100	78						7.5		
											8.0		
											8.5		
		8.50m - 10.00m	83	70	69						9.0		
											9.5		
							10.00						
Drilling Flush Details					Water Strikes				General Remarks:			Logged By:	
Depth Top (m)	Depth Base (m)	Flush Type	Flush Return	Depth Struck (m)	Casing (m)	Depth Sealed (m)	Remarks	TT					
								Method/Plant Used: Conaccio 205			Approved By:		
											TT		
										Scale:	1:50		
										Method/Plant Used:	Conaccio 205		
										Sheet 1 of 1			

clarkebond		Trial Pit Log					Trial Pit No.: TP01	
Project Name: Newquay HWRC			Co-Ordinates: 183279 E 60590 N			Start: 09/04/2024		
Project Number: E06494			Ground Level (m OD):			End: 09/04/2024		
Samples and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	Water Strike	Well
Depth (m)	Type	Results						
1.00	ES		1.60			Pale grey clayey GRAVEL. Gravel is fine to coarse angular mudstone. (RESIDUAL SOIL)	0.5	
1.80	DS					Extremely weak very thinly to thinly bedded very closely fissured grey brown MUDSTONE, recovered as angular gravel sized fragments. (WEATHERED BOVISAND FORMATION)	1.0	
2.00	B					Very weak thinly bedded very closely to closely fissured grey brown MUDSTONE, recovered as angular gravel and cobble sized fragments. ♦ (BOVISAND FORMATION)	1.5	
			2.40				2.0	
			2.60				2.5	
						End of Pit at 2.60m	3.0	
							3.5	
							4.0	
							4.5	
							5.0	
<div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 5px;"></div>						General Remarks: Dry and stable. Hard digging in Mudstone.	Logged By: TT	
							Approved By: TT	
Stability: Stable							Scale: 1:25	
Shoring: N/A						Method/Plant Used: JCB 3CX 2ft toothed bucket	Sheet 1 of 1	

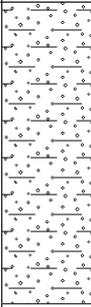
clarkebond		Trial Pit Log					Trial Pit No.: TP02	
Project Name: Newquay HWRC			Co-Ordinates: 183304 E 60589 N			Start: 09/04/2024		
Project Number: E06494			Ground Level (m OD):			End: 09/04/2024		
Samples and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	Water Strike	Well
Depth (m)	Type	Results						
0.70	ES					Pale grey very clayey GRAVEL. Gravel is fine to coarse angular mudstone. (RESIDUAL SOIL)	0.5	
1.00	B					Extremely weak very thinly to thinly bedded very closely fissured grey brown MUDSTONE, recovered as angular gravel sized fragments. (WEATHERED BOVISAND FORMATION)	1.0	
			1.70			Very weak thinly bedded very closely to closely fissured grey brown MUDSTONE, recovered as angular gravel and cobble sized fragments. (BOVISAND FORMATION)	1.5	
			2.40			Very weak thinly bedded very closely to closely fissured grey brown MUDSTONE, recovered as angular gravel and cobble sized fragments. (BOVISAND FORMATION)	2.0	
			2.60			Very weak thinly bedded very closely to closely fissured grey brown MUDSTONE, recovered as angular gravel and cobble sized fragments. (BOVISAND FORMATION)	2.5	
						End of Pit at 2.60m	3.0	
							3.5	
							4.0	
							4.5	
							5.0	
<div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 5px;"></div>						General Remarks: Dry. Some spalling in Weathered Mudstone. Hard digging in Mudstone.		Logged By: TT
								Approved By: TT
Stability: Spalling in Mudstone						Scale: 1:25		
Shoring: N/A						Method/Plant Used: JCB 3CX 2ft toothed bucket		
						Sheet 1 of 1		

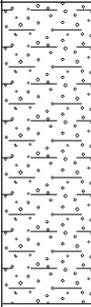
clarkebond		Trial Pit Log					Trial Pit No.: TP03	
Project Name: Newquay HWRC			Co-Ordinates: 183321 E 60599 N			Start: 09/04/2024		
Project Number: E06494			Ground Level (m OD):			End: 09/04/2024		
Samples and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	Water Strike	Well
Depth (m)	Type	Results						
0.60	EM		1.20			Grey brown clayey GRAVEL. Gravel is fine to coarse angular mudstone. (RESIDUAL SOIL)	0.5	
1.00	DS					Extremely weak very thinly to thinly bedded very closely fissured grey brown MUDSTONE, recovered as angular gravel sized fragments. (WEATHERED BOVISAND FORMATION)	1.0	
						Very weak thinly bedded very closely to closely fissured grey brown MUDSTONE, recovered as angular gravel and cobble sized fragments. ♦ (BOVISAND FORMATION)	1.5	
			2.20				2.0	
			2.40				2.5	
						End of Pit at 2.40m		
								3.0
								3.5
								4.0
								4.5
								5.0
<div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 5px;"></div>						General Remarks: Dry. Some spalling in Weathered Mudstone. Hard digging in Mudstone.		Logged By: TT
								Approved By: TT
Stability: Spalling in Mudstone								Scale: 1:25
Shoring: N/A						Method/Plant Used: JCB 3CX 2ft toothed bucket		Sheet 1 of 1

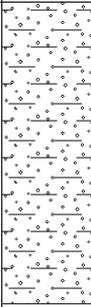
clarkebond		Trial Pit Log					Trial Pit No.: TP04	
Project Name: Newquay HWRC			Co-Ordinates: 183292 E 60601 N			Start: 09/04/2024		
Project Number: E06494			Ground Level (m OD):			End: 09/04/2024		
Samples and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	Water Strike	Well
Depth (m)	Type	Results						
0.40 0.45	DS ES		0.50			Firm to stiff grey gravelly CLAY. Gravel is fine to coarse angular mudstone. (RESIDUAL SOIL)	0.5	
			1.10			Extremely weak very thinly to thinly bedded very closely fissured grey brown MUDSTONE, recovered as angular gravel sized fragments. (WEATHERED BOVISAND FORMATION)	1.0	
1.50	B		2.40			Very weak thinly bedded very closely to closely fissured grey brown MUDSTONE, recovered as angular gravel and cobble sized fragments. ♦ (BOVISAND FORMATION)	1.5 2.0	
						End of Pit at 2.40m	2.5 3.0 3.5 4.0 4.5 5.0	
<div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 5px;"></div>						General Remarks: Dry. Some spalling in Weathered Mudstone. Hard digging in Mudstone.		Logged By: TT
						Stability: Spalling in Mudstone		Method/Plant Used: JCB 3CX 2ft toothed bucket
Shoring: N/A				Scale: 1:25		Sheet 1 of 1		

clarkebond		Trial Pit Log					Trial Pit No.: TP05						
Project Name: Newquay HWRC			Co-Ordinates: 183268 E 60601 N			Start: 09/04/2024							
Project Number: E06494			Ground Level (m OD):			End: 09/04/2024							
Samples and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	Water Strike	Well					
Depth (m)	Type	Results											
0.80	EM		0.80			Firm to stiff pale grey very gravelly CLAY. Gravel is fine to coarse angular mudstone. (RESIDUAL SOIL)	0.5						
1.40	B		1.60			Extremely weak very thinly to thinly bedded very closely fissured grey brown MUDSTONE, recovered as angular gravel sized fragments. (WEATHERED BOVISAND FORMATION)	1.0						
2.00	DS		2.80			Very weak thinly bedded very closely to closely fissured grey brown MUDSTONE, recovered as angular gravel and cobble sized fragments. ♦ (BOVISAND FORMATION)	2.0						
			2.80			End of Pit at 2.80m	2.5						
							3.0						
							3.5						
							4.0						
							4.5						
							5.0						
<div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 5px;"></div>						General Remarks:		Logged By:					
						Dry. Some spalling in Weathered Mudstone. Hard digging in Mudstone.						TT	
												Approved By:	
												TT	
Stability: Spalling in Mudstone						Scale:							
Shoring: N/A						1:25							
Method/Plant Used: JCB 3CX 2ft toothed bucket						Sheet 1 of 1							

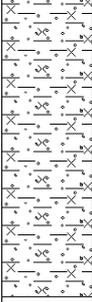
clarkebond		Trial Pit Log					Trial Pit No.: TP06	
Project Name: Newquay HWRC			Co-Ordinates: 183286 E 60617 N			Start: 09/04/2024		
Project Number: E06494			Ground Level (m OD):			End: 09/04/2024		
Samples and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	Water Strike	Well
Depth (m)	Type	Results						
0.60	EM		0.90			Brown clayey GRAVEL. Gravel is fine to coarse angular mudstone. (RESIDUAL SOIL)	0.5	
0.80	DS					Extremely weak very thinly to thinly bedded very closely fissured grey brown MUDSTONE, recovered as angular gravel sized fragments. (WEATHERED BOVISAND FORMATION)	1.0	
2.00	B		2.20			Very weak thinly bedded very closely to closely fissured grey brown MUDSTONE, recovered as angular gravel and cobble sized fragments. ♦ (BOVISAND FORMATION)	2.0	
			2.40			End of Pit at 2.40m	2.5	
<div style="border: 1px solid black; width: 100%; height: 100%;"></div>						General Remarks: Dry. Some spalling in Weathered Mudstone. Hard digging in Mudstone.		Logged By: TT
								Approved By: TT
Stability: Spalling in Mudstone						Scale: 1:25		
Shoring: N/A				Method/Plant Used: JCB 3CX 2ft toothed bucket		Sheet 1 of 1		

clarkebond		Trial Pit Log					Trial Pit No.: TP07	
Project Name: Newquay HWRC			Co-Ordinates: 183302 E 60616 N			Start: 09/04/2024		
Project Number: E06494			Ground Level (m OD):			End: 09/04/2024		
Samples and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	Water Strike	Well
Depth (m)	Type	Results						
0.80	DS		1.00			Grey brown clayey GRAVEL. Gravel is fine to coarse angular mudstone. (RESIDUAL SOIL)	0.5	
0.90	EM					Extremely weak very thinly to thinly bedded very closely fissured grey brown MUDSTONE, recovered as angular gravel sized fragments. (WEATHERED BOVISAND FORMATION)	1.0	
1.50	B					Very weak thinly bedded very closely to closely fissured grey brown MUDSTONE, recovered as angular gravel and cobble sized fragments. ♦ (BOVISAND FORMATION)	2.0	
			2.00				2.0	
			2.30				2.30	
						End of Pit at 2.30m		
								2.5
								3.0
								3.5
								4.0
								4.5
								5.0
<div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 5px;"></div>						General Remarks: Dry. Some spalling in Weathered Mudstone. Hard digging in Mudstone.		Logged By: TT
						Stability: Spalling in Mudstone		
Shoring: N/A				Method/Plant Used: JCB 3CX 2ft toothed bucket		Scale: 1:25		
								Sheet 1 of 1

clarkebond		Trial Pit Log					Trial Pit No.: TP08	
Project Name: Newquay HWRC			Co-Ordinates: 183315 E 60623 N			Start: 09/04/2024		
Project Number: E06494			Ground Level (m OD):			End: 09/04/2024		
Samples and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	Water Strike	Well
Depth (m)	Type	Results						
0.90	DS		1.00			Grey clayey GRAVEL. Gravel is fine to coarse angular mudstone. (RESIDUAL SOIL)	0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0	
1.60	B					Extremely weak very thinly to thinly bedded very closely fissured grey brown MUDSTONE, recovered as angular gravel sized fragments. (WEATHERED BOVISAND FORMATION)		
						Very weak thinly bedded very closely to closely fissured grey brown MUDSTONE, recovered as angular gravel and cobble sized fragments. ♦ (BOVISAND FORMATION)		
						End of Pit at 2.30m		
<div style="border: 1px solid black; width: 100%; height: 100%;"></div>						General Remarks: Dry and stable. Hard digging in Mudstone.		Logged By: TT
								Approved By: TT
Stability: Stable						Scale: 1:25		
Shoring: N/A						Method/Plant Used: JCB 3CX 2ft toothed bucket		Sheet 1 of 1

clarkebond		Trial Pit Log					Trial Pit No.: TP09	
Project Name: Newquay HWRC			Co-Ordinates: 183297 E 60627 N			Start: 09/04/2024		
Project Number: E06494			Ground Level (m OD):			End: 09/04/2024		
Samples and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	Water Strike	Well
Depth (m)	Type	Results						
0.90	EM		1.00			Grey clayey GRAVEL. Gravel is fine to coarse angular mudstone. (RESIDUAL SOIL)	0.5	
1.50	DS					Extremely weak very thinly to thinly bedded very closely fissured grey brown MUDSTONE, recovered as angular gravel sized fragments. (WEATHERED BOVISAND FORMATION)	1.0	
2.00	B					Very weak thinly bedded very closely to closely fissured grey brown MUDSTONE, recovered as angular gravel and cobble sized fragments. ♦ (BOVISAND FORMATION)	2.0	
			2.20			End of Pit at 2.40m	2.5	
			2.40					
<div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 5px;"></div>						General Remarks:		Logged By:
						Dry. Some spalling in Weathered Mudstone. Hard digging in Mudstone.		TT
								Approved By:
								TT
Stability: Spalling in Mudstone				Scale:	1:25			
Shoring: N/A		Method/Plant Used: JCB 3CX 2ft toothed bucket		Sheet 1 of 1				

clarkebond		Trial Pit Log					Trial Pit No.: TP10	
Project Name: Newquay HWRC			Co-Ordinates: 183272 E 60626 N			Start: 09/04/2024		
Project Number: E06494			Ground Level (m OD):			End: 09/04/2024		
Samples and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	Water Strike	Well
Depth (m)	Type	Results						
0.80	EM		0.90			Grey clayey GRAVEL. Gravel is fine to coarse angular mudstone. (RESIDUAL SOIL)	0.5	
1.50	DS					Extremely weak very thinly to thinly bedded very closely fissured grey brown MUDSTONE, recovered as angular gravel sized fragments. (WEATHERED BOVISAND FORMATION)	1.0	
						Very weak thinly bedded very closely to closely fissured grey brown MUDSTONE, recovered as angular gravel and cobble sized fragments. ♦ (BOVISAND FORMATION)	1.5	
			2.10				2.0	
			2.40				2.5	
						End of Pit at 2.40m		
<div style="border: 1px solid black; width: 100%; height: 100%;"></div>						General Remarks: Dry. Some spalling in Weathered Mudstone. Hard digging in Mudstone.		Logged By: TT
								Approved By: TT
Stability: Spalling in Mudstone						Scale: 1:25		
Shoring: N/A						Method/Plant Used: JCB 3CX 2ft toothed bucket		Sheet 1 of 1

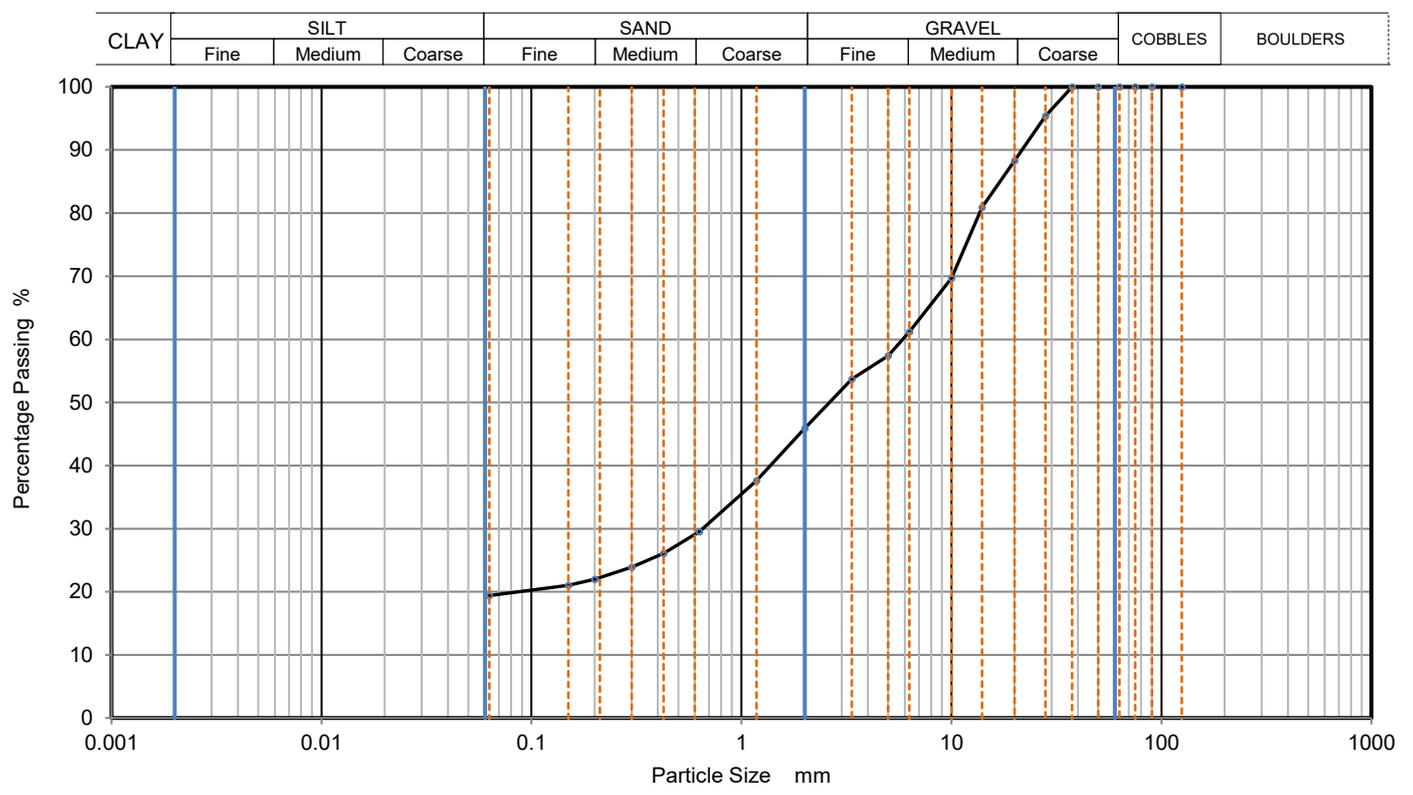
clarkebond		Trial Pit Log					Trial Pit No.: SA01	
Project Name: Newquay HWRC			Co-Ordinates: 183295 E 60645 N			Start: 09/04/2024		
Project Number: E06494			Ground Level (m OD):			End: 09/04/2024		
Samples and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	Water Strike	Well
Depth (m)	Type	Results						
			1.00			Firm pale grey brown silty gravelly CLAY. Gravel is fine to coarse angular mudstone. (RESIDUAL SOIL)	0.5	
			1.80			Extremely weak very thinly to thinly bedded very closely fissured grey brown MUDSTONE, recovered as angular gravel sized fragments. (WEATHERED BOVISAND FORMATION)	1.0 1.5	
End of Pit at 1.80m							2.0 2.5 3.0 3.5 4.0 4.5 5.0	
<div style="border: 1px solid black; width: 100%; height: 100%;"></div>						General Remarks: Dry. Some spalling in Weathered Mudstone.		Logged By: TT
								Approved By: TT
Stability: Spalling in Mudstone						Scale: 1:25		
Shoring: N/A						Method/Plant Used: JCB 3CX 2ft toothed bucket		Sheet 1 of 1

clarkebond		Trial Pit Log					Trial Pit No.: SA02	
Project Name: Newquay HWRC			Co-Ordinates: 183312 E 60641 N			Start: 09/04/2024		
Project Number: E06494			Ground Level (m OD):			End: 09/04/2024		
Samples and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	Water Strike	Well
Depth (m)	Type	Results						
						Firm pale grey brown silty gravelly CLAY. Gravel is fine to coarse angular mudstone. (RESIDUAL SOIL)	0.5	
			1.50			Extremely weak very thinly to thinly bedded very closely fissured grey brown MUDSTONE, recovered as angular gravel sized fragments. (WEATHERED BOVISAND FORMATION)	1.5	
			1.80			End of Pit at 1.80m	2.0	
							2.5	
							3.0	
							3.5	
							4.0	
							4.5	
							5.0	
<div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 5px;"></div>						General Remarks: Dry. Some spalling in Weathered Mudstone.		Logged By: TT
								Approved By: TT
Stability: Spalling in Mudstone								Scale: 1:25
Shoring: N/A						Method/Plant Used: JCB 3CX 2ft toothed bucket		Sheet 1 of 1

F Infiltration Test Results

G Geotechnical Test Certificates

	PARTICLE SIZE DISTRIBUTION		Project No.	15923	
			Borehole/Pit No.	TP02	
Project Name	Newquay HWRC		Sample No.		
Soil Description	Greyish brown very sandy silty/clayey GRAVEL		Depth, m	1.00	
Specimen Reference	2	Specimen Depth	m	Sample Type	B
Test Method	BS EN ISO 17892-4: 2016, clause 5.2				



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	95		
20	88		
14	81		
10	70		
6.3	61		
5	57		
3.35	54		
2	46		
1.18	38		
0.63	30		
0.425	26		
0.3	24		
0.2	22		
0.15	21		
0.063	19		

Dry Mass of sample, g	12693
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Sample Proportions	% dry mass
Very coarse	0
Gravel	54
Sand	27
Fines <0.063mm	19

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

Remarks

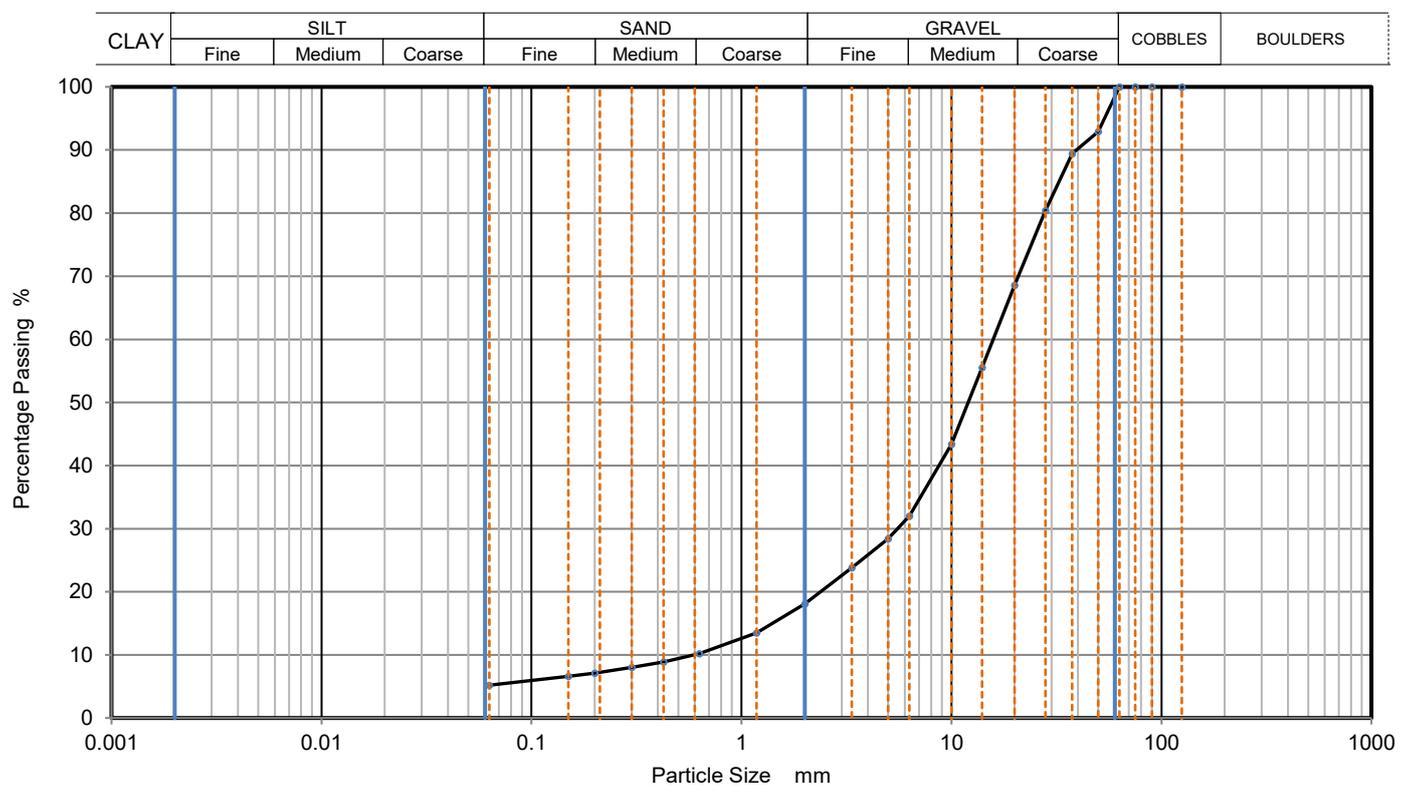
Preparation and testing in accordance with BS EN ISO 17892-4: 2016



8260
Accredited to
ISO/IEC
17025:2017

Approved by	Date	Sheet ID:
David Trowbridge - Laboratory Manager	01/05/2024	KL002R PSD

	PARTICLE SIZE DISTRIBUTION		Project No.	15923	
			Borehole/Pit No.	TP06	
Project Name	Newquay HWRC		Sample No.		
Soil Description	Brown sandy slightly silty/clayey GRAVEL		Depth, m	2.00	
Specimen Reference	2	Specimen Depth	m	Sample Type	B
Test Method	BS EN ISO 17892-4: 2016, clause 5.2				



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	93		
37.5	89		
28	80		
20	69		
14	56		
10	43		
6.3	32		
5	28		
3.35	24		
2	18		
1.18	14		
0.63	10		
0.425	9		
0.3	8		
0.2	7		
0.15	7		
0.063	5		

Dry Mass of sample, g	11622
------------------------------	-------

Sample Proportions	% dry mass
Very coarse	0
Gravel	82
Sand	13
Fines <0.063mm	5

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	27
Curvature Coefficient	3.3

Remarks

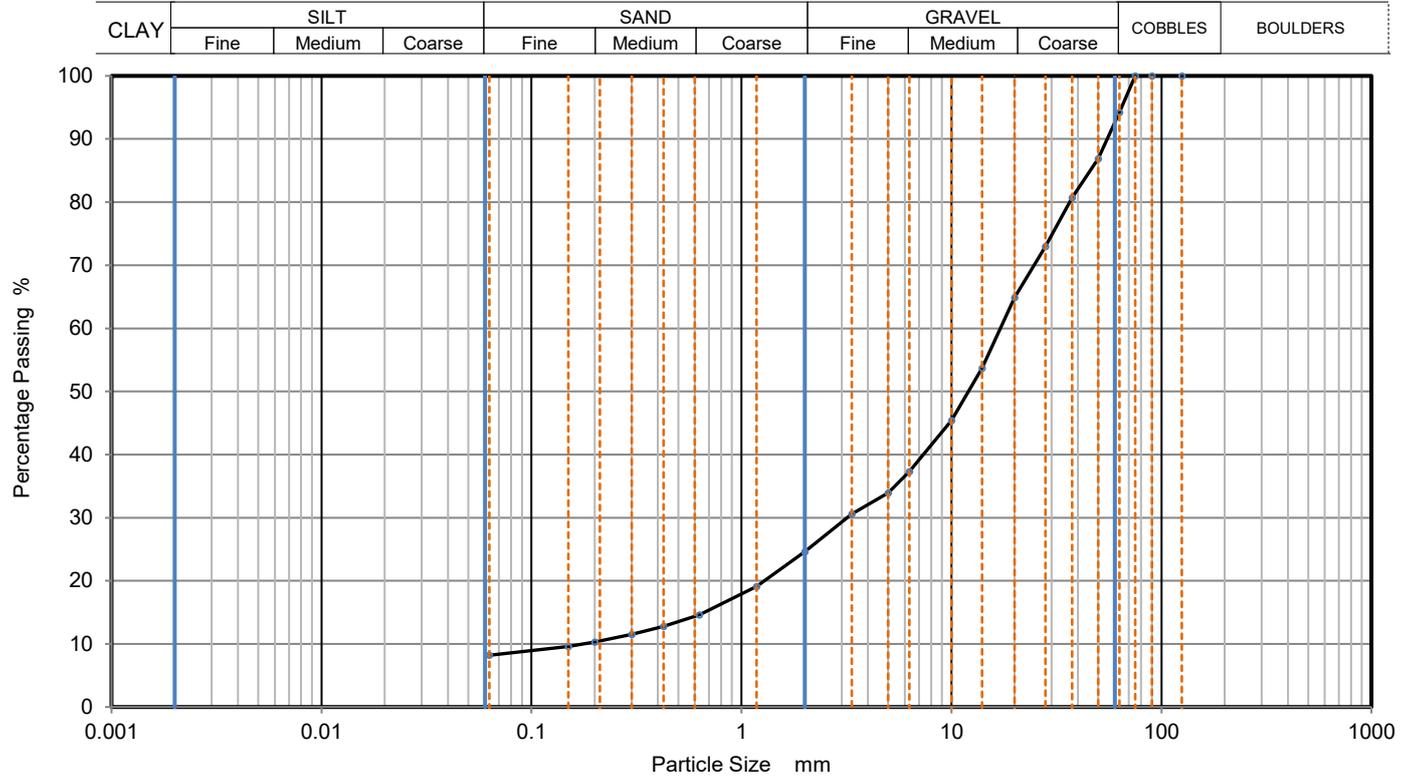
Preparation and testing in accordance with BS EN ISO 17892-4: 2016 - Deviation to standard as insufficient material provided in order to meet the minimum mass requirement



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Approved by	Date	Sheet ID:
David Trowbridge - Laboratory Manager	01/05/2024	KL002R PSD

	PARTICLE SIZE DISTRIBUTION		Project No.	15923	
			Borehole/Pit No.	TP07	
Project Name	Newquay HWRC		Sample No.		
Soil Description	Greyish brown sandy silty/clayey GRAVEL with medium cobble content		Depth, m	1.50	
Specimen Reference	2	Specimen Depth	m	Sample Type	B
Test Method	BS EN ISO 17892-4: 2016, clause 5.2				



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	94		
50	87		
37.5	81		
28	73		
20	65		
14	54		
10	45		
6.3	37		
5	34		
3.35	31		
2	25		
1.18	19		
0.63	15		
0.425	13		
0.3	12		
0.2	10		
0.15	10		
0.063	8		

Dry Mass of sample, g	9274
------------------------------	------

Sample Proportions	% dry mass
Very coarse	6
Gravel	70
Sand	16
Fines <0.063mm	8

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	98
Curvature Coefficient	3.3

Remarks

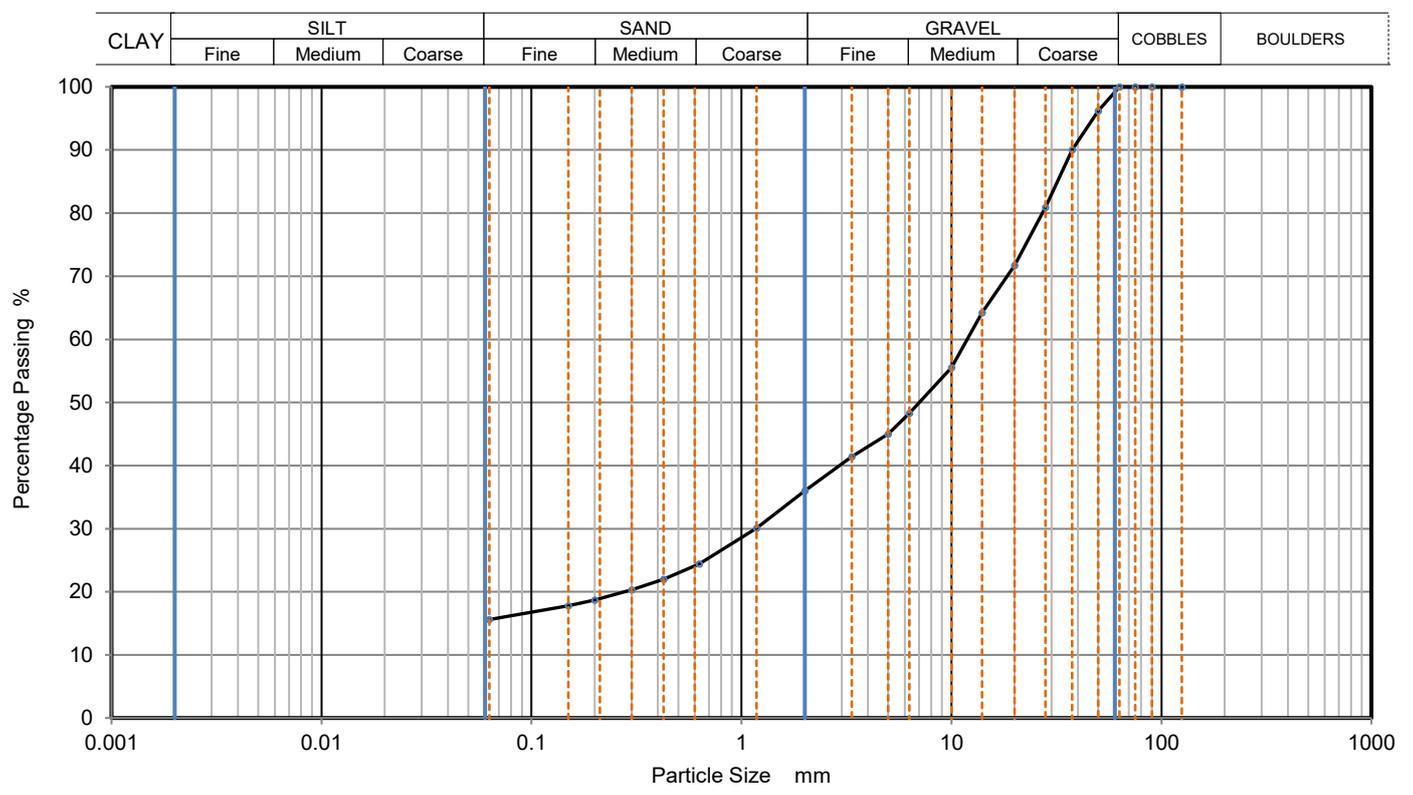
Preparation and testing in accordance with BS EN ISO 17892-4: 2016 - Deviation to standard as insufficient material provided in order to meet the minimum mass requirement



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Approved by	Date	Sheet ID:
David Trowbridge - Laboratory Manager	01/05/2024	KL002R PSD

	PARTICLE SIZE DISTRIBUTION		Project No.	15923	
			Borehole/Pit No.	TP09	
Project Name	Newquay HWRC		Sample No.		
Soil Description	Greyish brown very sandy silty/clayey GRAVEL		Depth, m	2.00	
Specimen Reference	2	Specimen Depth	m	Sample Type	B
Test Method	BS EN ISO 17892-4: 2016, clause 5.2				



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	96		
37.5	90		
28	81		
20	72		
14	64		
10	56		
6.3	48		
5	45		
3.35	41		
2	36		
1.18	30		
0.63	24		
0.425	22		
0.3	20		
0.2	19		
0.15	18		
0.063	16		

Dry Mass of sample, g	9163
------------------------------	------

Sample Proportions	% dry mass
Very coarse	0
Gravel	64
Sand	20
Fines <0.063mm	16

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

Remarks

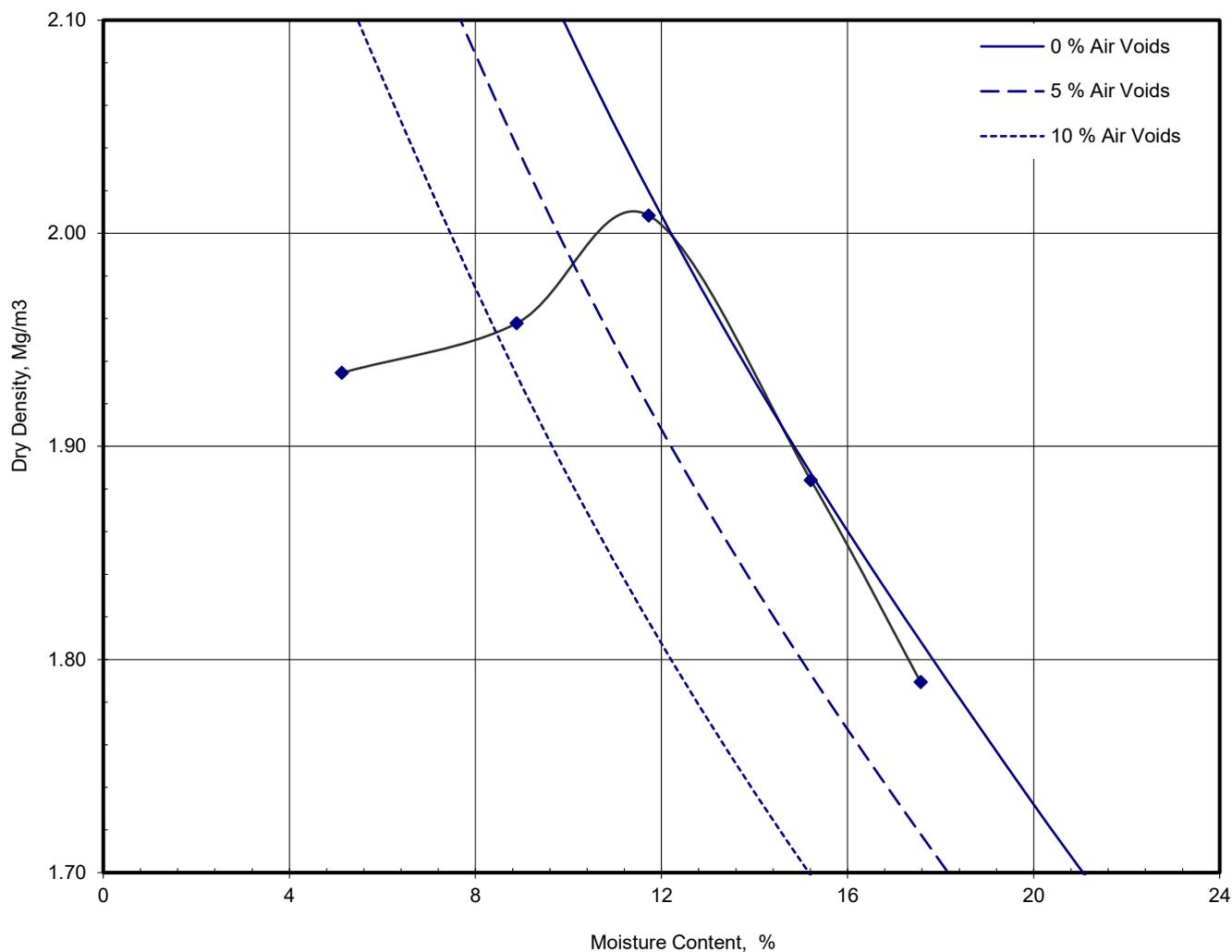
Preparation and testing in accordance with BS EN ISO 17892-4: 2016 - Deviation to standard as insufficient material provided in order to meet the minimum mass requirement



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Approved by	Date	Sheet ID:
David Trowbridge - Laboratory Manager	01/05/2024	KL002R PSD

	Dry Density / Moisture Content Relationship Light Compaction		Project No.	15923
	BS1377:Part 2:2022, clause 11.3, 2.5kg rammer		BH / TP No.	TP01
Project Name	Newquay HWRC		Sample No	-
Soil Description	Greyish brown slightly sandy silty slightly clayey GRAVEL		Depth (m)	2.00 -
Client Job No.	-	Specimen Depth	-	m
Client	Clarkebond Exeter		Prep Method	11.2.3.4



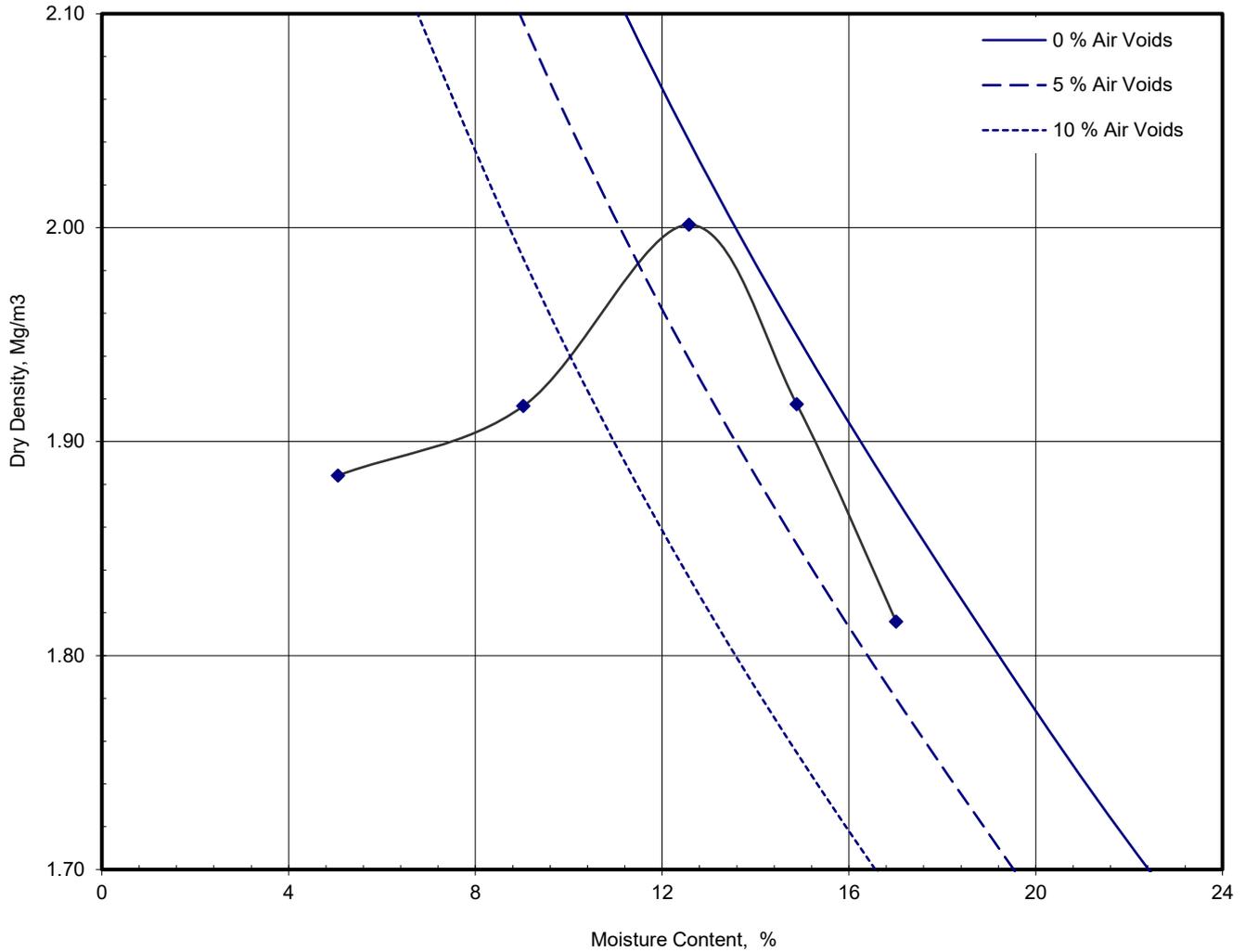
Preparation in accordance with BS1377: Part 1: 2016 CL8.6 (CL8.6.2 - 1 Litre Mould or CL8.6.3 - CBR Mould)	Material used was natural
Mould Type	One Litre
Samples Used	Separate specimens tested
Material Retained on 37.5 mm Sieve (%)	26
Material Retained on 20.0 mm Sieve (%)	16
Particle Density Mg/m³ - Assumed	2.65
Natural Moisture Content (%)	8.9
Maximum Dry Density (Mg/m³)	2.01
Optimum Moisture Content (%)	12



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KL003R MDD (Light)	Date	Approved	Remarks Insufficient for CBR	Page No.
	13/05/24	David Trowbridge - Laboratory Manager		1

	Dry Density / Moisture Content Relationship Light Compaction		Project No.	15923
	BS1377:Part 2:2022, clause 11.3, 2.5kg rammer		BH / TP No.	TP04
Project Name	Newquay HWRC		Sample No	-
Soil Description	Greyish brown slightly sandy silty slightly clayey GRAVEL		Depth (m)	1.50 -
Client Job No.	-	Specimen Depth	-	m
Client	Clarkebond Exeter		Prep Method	11.2.3.4



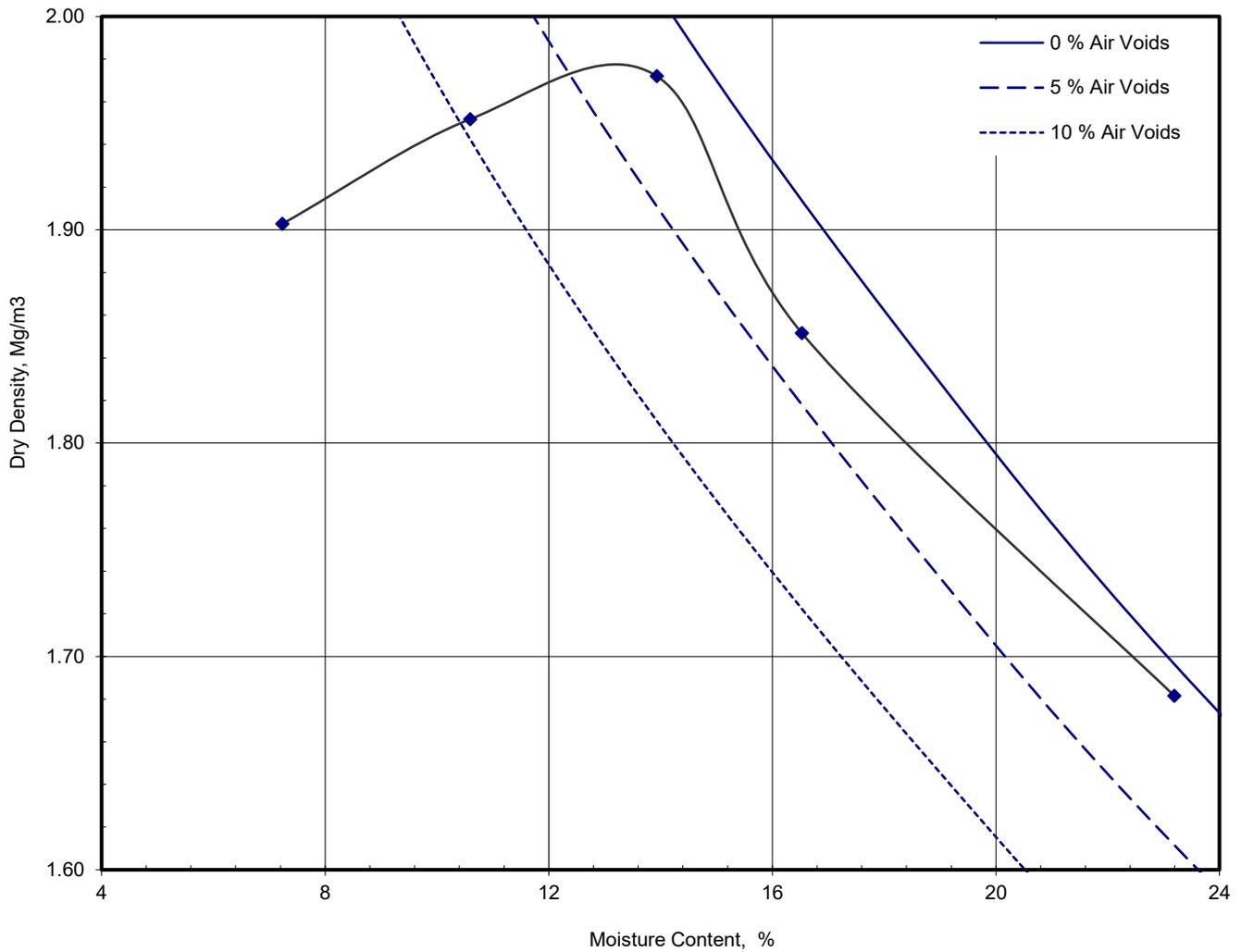
Preparation in accordance with BS1377: Part 1: 2016 CL8.6 (CL8.6.2 - 1 Litre Mould or CL8.6.3 - CBR Mould)	Material used was natural
Mould Type	One Litre
Samples Used	Separate specimens tested
Material Retained on 37.5 mm Sieve (%)	19
Material Retained on 20.0 mm Sieve (%)	17
Particle Density Mg/m³ - Assumed	2.75
Natural Moisture Content (%)	9
Maximum Dry Density (Mg/m³)	2.00
Optimum Moisture Content (%)	13



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KL003R MDD (Light)	Date	Approved	Remarks Insufficient for CBR	Page No.
	13/05/24	David Trowbridge - Laboratory Manager		2

	Dry Density / Moisture Content Relationship Light Compaction		Project No.	15923
	BS1377:Part 2:2022, clause 11.3, 2.5kg rammer		BH / TP No.	TP05
Project Name	Newquay HWRC		Sample No	-
Soil Description	Greyish brown slightly sandy silty slightly clayey GRAVEL		Depth (m)	1.40 -
Client Job No.	-	Specimen Depth	-	m
Client	Clarkebond Exeter		Sample Type	B
			Prep Method	11.2.3.4



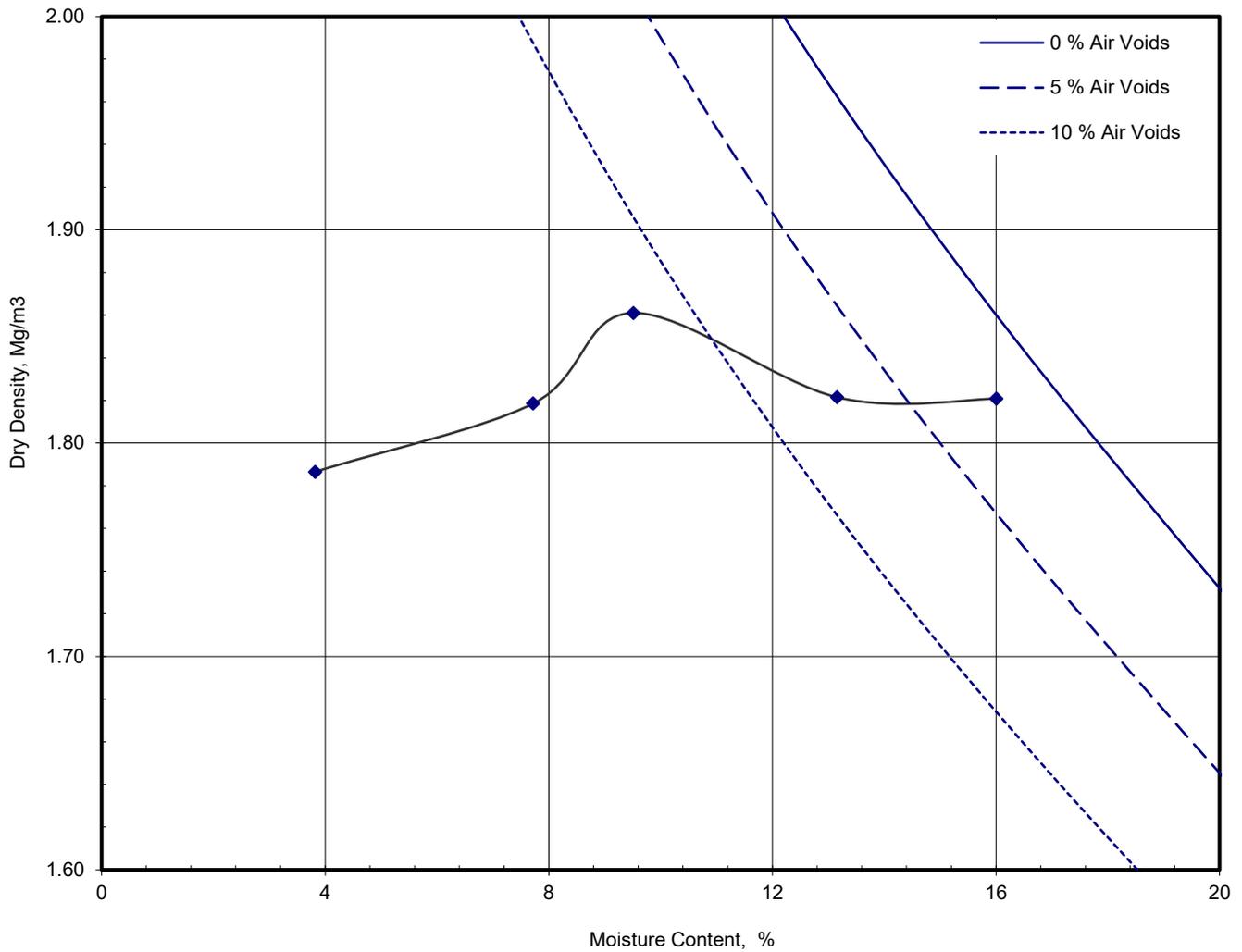
Preparation in accordance with BS1377: Part 1: 2016 CL8.6 (CL8.6.2 - 1 Litre Mould or CL8.6.3 - CBR Mould)	Material used was natural
Mould Type	One Litre
Samples Used	Separate specimens tested
Material Retained on 37.5 mm Sieve (%)	0
Material Retained on 20.0 mm Sieve (%)	9
Particle Density Mg/m³ - Assumed	2.80
Natural Moisture Content (%)	10.6
Maximum Dry Density (Mg/m³)	1.97
Optimum Moisture Content (%)	14



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KL003R MDD (Light)	Date	Approved	Remarks Insufficient for CBR	Page No.
	13/05/24	David Trowbridge - Laboratory Manager		3

	Dry Density / Moisture Content Relationship Light Compaction		Project No.	15923
	BS1377:Part 2:2022, clause 11.3, 2.5kg rammer		BH / TP No.	TP08
Project Name	Newquay HWRC		Sample No	-
Soil Description	Greyish brown slightly sandy silty slightly clayey GRAVEL		Depth (m)	1.60 -
Client Job No.	-	Specimen Depth	-	m
Client	Clarkebond Exeter		Sample Type	B
			Prep Method	11.2.3.4



Preparation in accordance with BS1377: Part 1: 2016 CL8.6 (CL8.6.2 - 1 Litre Mould or CL8.6.3 - CBR Mould)	Material used was natural
Mould Type	One Litre
Samples Used	Separate specimens tested
Material Retained on 37.5 mm Sieve (%)	15
Material Retained on 20.0 mm Sieve (%)	26
Particle Density Mg/m³ - Assumed	2.65
Natural Moisture Content (%)	13.2
Maximum Dry Density (Mg/m³)	1.86
Optimum Moisture Content (%)	9.5



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KL003R MDD (Light)	Date	Approved	Remarks Insufficient for CBR	Page No.
	13/05/24	David Trowbridge - Laboratory Manager		4

H Chemical Test Certificates



DETS

Certificate of Analysis

Certificate Number 24-07664

Issued: 23-Apr-24

Client Clarke Bond (UK) LTD
129 Cumberland Road
Bristol
BS1 6UY

Our Reference 24-07664

Client Reference ~ E06494

Order No ~ P11295

Contract Title ~ Newquay HWRC

Description 10 Soil samples, 2 Leachate prepared by DETS samples.

Date Received 15-Apr-24

Date Started 15-Apr-24

Date Completed 23-Apr-24

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By



Kirk Bridgewood
General Manager



Normec DETS Limited

Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY

Symbol key at end of report Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk

Page 1 of 9



Summary of Chemical Analysis

Soil Samples

Our Ref 24-07664
 Client Ref ~ E06494
 Contract Title ~ Newquay HWRC

Lab No	2324756	2324757	2324758	2324759	2324760	2324761
Sample ID ~	TP1	TP2	TP3	TP4	TP5	TP6
Depth ~	1.00	0.70	0.80	0.45	0.60	0.80
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg	16	29	14	15	17	17
Barium	DETSC 2301#	1.5	mg/kg			8.4		7.9	19
Beryllium	DETSC 2301#	0.2	mg/kg			0.5		0.5	1.0
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg			< 0.2		< 0.2	< 0.2
Cadmium	DETSC 2301#	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chromium	DETSC 2301#	0.15	mg/kg	34	36	36	37	39	26
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0		< 1.0		
Copper	DETSC 2301#	0.2	mg/kg	29	47	28	27	38	24
Lead	DETSC 2301#	0.3	mg/kg	24	180	19	18	26	24
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel	DETSC 2301#	1	mg/kg	52	53	53	47	63	48
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Vanadium	DETSC 2301#	0.8	mg/kg	21	29	23	23	27	21
Zinc	DETSC 2301#	1	mg/kg	90	91	84	73	98	100
Inorganics									
pH	DETSC 2008#		pH	8.1	7.9		8.0		
Organic matter	DETSC 2002#	0.1	%	0.1	0.3		0.3		
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l	< 10	< 10		< 10		
Petroleum Hydrocarbons									
Aliphatic C5-C6: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01		< 0.01		
Aliphatic C6-C8: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01		< 0.01		
Aliphatic C8-C10: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01		< 0.01		
Aliphatic C10-C12: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5		< 1.5		
Aliphatic C12-C16: EH_CU_1D_AL	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2		< 1.2		
Aliphatic C16-C21: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5		< 1.5		
Aliphatic C21-C35: EH_CU_1D_AL	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4		< 3.4		
Aliphatic C35-C44: EH_CU_1D_AL	DETSC 3072*	3.4	mg/kg	< 3.4	< 3.4		< 3.4		
Aliphatic C10-C44: EH_CU_1D_AL	DETSC 3072*	10	mg/kg	< 10	< 10		< 10		
Aromatic C5-C7: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01		< 0.01		
Aromatic C7-C8: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01		< 0.01		
Aromatic C8-C10: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01		< 0.01		
Aromatic C10-C12: EH_CU_1D_AR	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9		< 0.9		
Aromatic C12-C16: EH_CU_1D_AR	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5		< 0.5		
Aromatic C16-C21: EH_CU_1D_AR	DETSC 3072#	0.6	mg/kg	< 0.6	< 0.6		< 0.6		
Aromatic C21-C35: EH_CU_1D_AR	DETSC 3072#	1.4	mg/kg	< 1.4	< 1.4		< 1.4		
Aromatic C35-C44: EH_CU_1D_AR	DETSC 3072*	1.4	mg/kg	< 1.4	< 1.4		< 1.4		
Aromatic C10-C44: EH_CU_1D_AR	DETSC 3072*	10	mg/kg	< 10	< 10		< 10		
Ali/Aro C10-C44: EH_CU_1D_Total	DETSC 3072*	10	mg/kg	< 10	< 10		< 10		
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03		< 0.03		
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03		< 0.03		



Summary of Chemical Analysis

Soil Samples

Our Ref 24-07664
 Client Ref ~ E06494
 Contract Title ~ Newquay HWRC

Lab No	2324756	2324757	2324758	2324759	2324760	2324761
Sample ID ~	TP1	TP2	TP3	TP4	TP5	TP6
Depth ~	1.00	0.70	0.80	0.45	0.60	0.80
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03		< 0.03		
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03		< 0.03		
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03		< 0.03		
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03		< 0.03		
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03		< 0.03		
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03		< 0.03		
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03		< 0.03		
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03		< 0.03		
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03		< 0.03		
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03		< 0.03		
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03		< 0.03		
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03		< 0.03		
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03		< 0.03		
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03		< 0.03		
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10	< 0.10		< 0.10		

Summary of Chemical Analysis

Soil Samples

Our Ref 24-07664

Client Ref ~ E06494

Contract Title ~ Newquay HWRC

Lab No	2324762	2324763	2324764	2324765
Sample ID ~	TP7	TP9	TP10	TP8A
Depth ~	0.80	0.90	0.80	0.30
Other ID ~				
Sample Type ~	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	09/04/2024	09/04/2024	09/04/2024	09/04/2024
Sampling Time ~	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
Metals							
Arsenic	DETSC 2301#	0.2	mg/kg	20	11	15	19
Barium	DETSC 2301#	1.5	mg/kg	9.4	12	7.9	
Beryllium	DETSC 2301#	0.2	mg/kg	0.8	0.4	0.8	
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg	< 0.2	< 0.2	< 0.2	
Cadmium	DETSC 2301#	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.1
Chromium	DETSC 2301#	0.15	mg/kg	39	34	30	28
Chromium, Hexavalent	DETSC 2204*	1	mg/kg				< 1.0
Copper	DETSC 2301#	0.2	mg/kg	36	28	34	24
Lead	DETSC 2301#	0.3	mg/kg	18	18	26	37
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Nickel	DETSC 2301#	1	mg/kg	63	46	68	29
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vanadium	DETSC 2301#	0.8	mg/kg	26	22	24	27
Zinc	DETSC 2301#	1	mg/kg	95	74	110	77
Inorganics							
pH	DETSC 2008#		pH				7.1
Organic matter	DETSC 2002#	0.1	%				3.4
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l				15
Petroleum Hydrocarbons							
Aliphatic C5-C6: HS_1D_AL	DETSC 3321*	0.01	mg/kg				< 0.01
Aliphatic C6-C8: HS_1D_AL	DETSC 3321*	0.01	mg/kg				< 0.01
Aliphatic C8-C10: HS_1D_AL	DETSC 3321*	0.01	mg/kg				< 0.01
Aliphatic C10-C12: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg				< 1.5
Aliphatic C12-C16: EH_CU_1D_AL	DETSC 3072#	1.2	mg/kg				< 1.2
Aliphatic C16-C21: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg				< 1.5
Aliphatic C21-C35: EH_CU_1D_AL	DETSC 3072#	3.4	mg/kg				< 3.4
Aliphatic C35-C44: EH_CU_1D_AL	DETSC 3072*	3.4	mg/kg				< 3.4
Aliphatic C10-C44: EH_CU_1D_AL	DETSC 3072*	10	mg/kg				< 10
Aromatic C5-C7: HS_1D_AR	DETSC 3321*	0.01	mg/kg				< 0.01
Aromatic C7-C8: HS_1D_AR	DETSC 3321*	0.01	mg/kg				< 0.01
Aromatic C8-C10: HS_1D_AR	DETSC 3321*	0.01	mg/kg				< 0.01
Aromatic C10-C12: EH_CU_1D_AR	DETSC 3072#	0.9	mg/kg				< 0.9
Aromatic C12-C16: EH_CU_1D_AR	DETSC 3072#	0.5	mg/kg				< 0.5
Aromatic C16-C21: EH_CU_1D_AR	DETSC 3072#	0.6	mg/kg				< 0.6
Aromatic C21-C35: EH_CU_1D_AR	DETSC 3072#	1.4	mg/kg				< 1.4
Aromatic C35-C44: EH_CU_1D_AR	DETSC 3072*	1.4	mg/kg				< 1.4
Aromatic C10-C44: EH_CU_1D_AR	DETSC 3072*	10	mg/kg				< 10
Ali/Aro C10-C44: EH_CU_1D_Total	DETSC 3072*	10	mg/kg				< 10
PAHs							
Naphthalene	DETSC 3303#	0.03	mg/kg				< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg				< 0.03



Summary of Chemical Analysis

Soil Samples

Our Ref 24-07664
 Client Ref ~ E06494
 Contract Title ~ Newquay HWRC

Lab No	2324762	2324763	2324764	2324765
Sample ID ~	TP7	TP9	TP10	TP8A
Depth ~	0.80	0.90	0.80	0.30
Other ID ~				
Sample Type ~	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	09/04/2024	09/04/2024	09/04/2024	09/04/2024
Sampling Time ~	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
Acenaphthene	DETSC 3303#	0.03	mg/kg				< 0.03
Fluorene	DETSC 3303	0.03	mg/kg				< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg				< 0.03
Anthracene	DETSC 3303	0.03	mg/kg				< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg				< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg				< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg				< 0.03
Chrysene	DETSC 3303	0.03	mg/kg				< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg				< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg				< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg				< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg				< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg				< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg				< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg				< 0.10

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 24-07664

Client Ref E06494

Contract Title Newquay HWRC

Sample Id TP1 1.00

Sample Numbers 2324756 2324766 2324767

Date Analysed 23/04/2024

Test Results On Waste			WAC Limit Values		
Determinand and Method Reference	Units	Result	Inert Waste	SNRHW	Hazardous Waste
DETSC 2084# Total Organic Carbon	%	< 0.5	3	5	6
DETSC 2003# Loss On Ignition	%	0.74	n/a	n/a	10
DETSC 3321# BTEX	mg/kg	< 0.04	6	n/a	n/a
DETSC 3401# PCBs (7 congeners)	mg/kg	< 0.01	1	n/a	n/a
DETSC 3311# EPH (C10 - C40): EH_1D_Total	mg/kg	< 10	500	n/a	n/a
DETSC 3301 PAHs	mg/kg	< 1.6	100	n/a	n/a
DETSC 2008# pH	pH Units	8.1	n/a	>6	n/a
DETSC 2073* Acid Neutralisation Capacity (pH4)	mol/kg	< 1.0	n/a	TBE	TBE
DETSC 2073* Acid Neutralisation Capacity (pH7)	mol/kg	< 1.0	n/a	TBE	TBE

Test Results On Leachate					WAC Limit Values		
Determinand and Method Reference	Conc in Eluate ug/l		Amount Leached* mg/kg		Inert Waste	SNRHW	Hazardous Waste
	2:1	8:1	LS2	LS10			
DETSC 2306 Arsenic as As	1.5	1.1	0.003	0.012	0.5	2	25
DETSC 2306 Barium as Ba	2.3	0.42	< 0.02	< 0.1	20	100	300
DETSC 2306 Cadmium as Cd	< 0.030	< 0.030	< 0.004	< 0.02	0.04	1	5
DETSC 2306 Chromium as Cr	< 0.25	< 0.25	< 0.02	< 0.1	0.5	10	70
DETSC 2306 Copper as Cu	1	0.42	< 0.004	< 0.02	2	50	100
DETSC 2306 Mercury as Hg	< 0.010	< 0.010	< 0.0004	< 0.002	0.01	0.2	2
DETSC 2306 Molybdenum as Mo	< 1.1	< 1.1	< 0.02	< 0.1	0.5	10	30
DETSC 2306 Nickel as Ni	< 0.50	< 0.50	< 0.02	< 0.1	0.4	10	40
DETSC 2306 Lead as Pb	0.32	0.22	< 0.01	< 0.05	0.5	10	50
DETSC 2306 Antimony as Sb	< 0.17	< 0.17	< 0.01	< 0.05	0.06	0.7	5
DETSC 2306 Selenium as Se	< 0.25	< 0.25	< 0.006	< 0.03	0.1	0.5	7
DETSC 2306 Zinc as Zn	1.9	6.6	0.004	0.058	4	50	200
DETSC 2055 Chloride as Cl	2700	460	< 20	< 100	800	15,000	25,000
DETSC 2055* Fluoride as F	< 100	< 100	< 0.02	< 0.1	10	150	500
DETSC 2055 Sulphate as SO4	1300	650	< 20	< 100	1000	20,000	50,000
DETSC 2009* Total Dissolved Solids	27000	5100	54	90.4	4000	60,000	100,000
DETSC 2130 Phenol Index	< 100	< 100	< 0.2	< 1	1	n/a	n/a
DETSC 2085 Dissolved Organic Carbon	3800	< 2000	< 10	< 50	500	800	1000

TBE - To Be Evaluated
SNRHW - Stable Non-Reactive
Hazardous Waste

Additional Information		
DETSC 2008 pH	6.5	7.0
DETSC 2009 Conductivity uS/cm	38.3	7.3
* Temperature*	17.0	17.0

Mass of Sample Kg*	0.130
Mass of dry Sample Kg*	0.119

Stage 1

Volume of Leachant L2*	0.227
Volume of Eluate VE1*	0.214

Stage 2

Volume of Leachant L8*	0.951
Volume of Eluate VE2*	0.908

Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions. Values are correct at time of issue.

* DETS are accredited for the testing of leachates and not the leachate preparation stage which is unaccredited.

Information in Support of the Analytical Results

Our Ref 24-07664
 Client Ref ~ E06494
 Contract ~ Newquay HWRC

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2324756	TP1 1.00 SOIL	09/04/24	GJ 250ml, PT 500ml		BTEX / C5-C10
2324757	TP2 0.70 SOIL	09/04/24	GJ 250ml, PT 500ml		BTEX / C5-C10
2324758	TP3 0.80 SOIL	09/04/24	PT 500ml		
2324759	TP4 0.45 SOIL	09/04/24	PT 500ml		Aliphatics/Aromatics, BTEX / C5-C10, Naphthalene, PAH MS
2324760	TP5 0.60 SOIL	09/04/24	PT 500ml		
2324761	TP6 0.80 SOIL	09/04/24	PT 500ml		
2324762	TP7 0.80 SOIL	09/04/24	PT 500ml		
2324763	TP9 0.90 SOIL	09/04/24	PT 500ml		
2324764	TP10 0.80 SOIL	09/04/24	PT 500ml		
2324765	TP8A 0.30 SOIL	09/04/24	GJ 250ml, PT 500ml		BTEX / C5-C10
2324766	TP1 1.00 LEACHATE	09/04/24	GJ 250ml, PT 500ml		
2324767	TP1 1.00 LEACHATE	09/04/24	GJ 250ml, PT 500ml		

Key: G-Glass P-Plastic J-Jar T-Tub

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Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Information in Support of the Analytical Results

List of HWOL Acronyms and Operators

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#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 eg. EH+HS_Total or EH_CU+HS_Total

Det	Acronym
Aliphatic C5-C6	HS_1D_AL
Aliphatic C6-C8	HS_1D_AL
Aliphatic C8-C10	HS_1D_AL
Aliphatic C10-C12	EH_CU_1D_AL
Aliphatic C12-C16	EH_CU_1D_AL
Aliphatic C16-C21	EH_CU_1D_AL
Aliphatic C21-C35	EH_CU_1D_AL
Aliphatic C35-C44	EH_CU_1D_AL
Aliphatic C10-C44	EH_CU_1D_AL
Aromatic C5-C7	HS_1D_AR
Aromatic C7-C8	HS_1D_AR
Aromatic C8-C10	HS_1D_AR
Aromatic C10-C12	EH_CU_1D_AR
Aromatic C12-C16	EH_CU_1D_AR
Aromatic C16-C21	EH_CU_1D_AR
Aromatic C21-C35	EH_CU_1D_AR
Aromatic C35-C44	EH_CU_1D_AR
Aromatic C10-C44	EH_CU_1D_AR
Ali/Aro C10-C44	EH_CU_1D_Total
TPH (C10-C40)	EH_1D_Total

Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report



DETS

Certificate of Analysis

Certificate Number 24-07665

Issued: 18-Apr-24

Client Clarke Bond (UK) LTD
129 Cumberland Road
Bristol
BS1 6UY

Our Reference 24-07665

Client Reference ~ E06494

Order No ~ P11295

Contract Title ~ Newquay HWRC

Description 9 Soil samples.

Date Received 15-Apr-24

Date Started 15-Apr-24

Date Completed 18-Apr-24

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By



Kirk Bridgewood
General Manager



Normec DETS Limited

Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY

Symbol key at end of report Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk

Page 1 of 3

Summary of Chemical Analysis

Soil Samples

Our Ref ~ 24-07665
 Client Ref ~ E06494
 Contract Title ~ Newquay HWRC

Lab No	2324768	2324769	2324770	2324771	2324772	2324773	2324774	2324775	2324776
Sample ID ~	TP1	TP3	TP4	TP5	TP6	TP7	TP8	TP9	TP10
Depth ~	1.80	1.00	0.40	2.00	0.80	0.80	0.90	1.50	1.50
Other ID ~									
Sample Type ~	SOIL								
Sampling Date ~	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024
Sampling Time ~	n/s								

Test	Method	LOD	Units									
Inorganics												
pH	DETSC 2008#		pH	8.6	8.1	8.1	8.0	8.0	8.1	8.2	8.2	8.1
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Sulphur as S, Total	DETSC 2320	0.01	%	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.02	< 0.01
Sulphate as SO4, Total	DETSC 2321#	0.01	%	< 0.01	< 0.01	0.02	0.01	0.01	0.03	< 0.01	< 0.01	< 0.01

Information in Support of the Analytical Results

Our Ref ~ 24-07665
 Client Ref ~ E06494
 Contract ~ Newquay HWRC

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Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2324768	TP1 1.80 SOIL	09/04/24	PT 500ml		
2324769	TP3 1.00 SOIL	09/04/24	PT 500ml		
2324770	TP4 0.40 SOIL	09/04/24	GJ 250ml, PT 500ml		
2324771	TP5 2.00 SOIL	09/04/24	PT 500ml		
2324772	TP6 0.80 SOIL	09/04/24	PT 500ml		
2324773	TP7 0.80 SOIL	09/04/24	PT 500ml		
2324774	TP8 0.90 SOIL	09/04/24	PT 500ml		
2324775	TP9 1.50 SOIL	09/04/24	PT 500ml		
2324776	TP10 1.50 SOIL	09/04/24	PT 500ml		

Key: P-Plastic T-Tub G-Glass J-Jar

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End of Report



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