



**Main Investigation Report**

at

**Samsons Gym, 237 Chamberlayne Road,  
Eastleigh, Hampshire SO50 5JB**

for

**Eastleigh Borough Council**

**Reference: I9I92/MIR RevI02  
November 2025**

## Control Document

### Project

Samsons Gym, 237 Chamberlayne Road, Eastleigh, Hampshire SO50 5JB

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This is not a valid document for use in the design of the project unless it is titled Final in the document status box.

Current regulations and good practice were used in the preparation of this report. The recommendations given in this report must be reviewed by an appropriately qualified person at the time of preparation of the scheme design to ensure that any recommendations given remain valid in light of changes in regulation and practice, or additional information obtained regarding the site.



**Commission**

This document comprises the Main Investigation Report (MIR) and incorporates the results, discussion, and conclusions to this intrusive works. General site data is recorded below:

| <b>Commission Record</b>    |                                                                   |
|-----------------------------|-------------------------------------------------------------------|
| Client                      | Eastleigh Borough Council                                         |
| Site Name                   | Samsons Gym, 237 Chamberlayne Road, Eastleigh, Hampshire SO50 5JB |
| Grid Reference              | SU 451 184                                                        |
| Soils Limited Quotation Ref | Q30459 dated 15 <sup>th</sup> September 2025                      |
| Clients Purchase Order      | PO-000310410 dated 16 <sup>th</sup> September 2025                |

The record of revision to this document is presented below:

| <b>Record Of Revisions</b> |               |                                                |
|----------------------------|---------------|------------------------------------------------|
| <b>Revision</b>            | <b>Date</b>   | <b>Reason</b>                                  |
| Rev1.0                     | May 2021      | Original                                       |
| Rev101                     | July 2023     | Update to Client name and plans                |
| Rev102                     | November 2025 | Additional site works and chemical lab testing |

**Note(s):** The latest revised document supersedes all previous revisions of the MIR produced by Soils Limited.

Documents associated with this development that must be referred to are given below.

| <b>Record Of Associated Documents</b> |                    |                            |                        |
|---------------------------------------|--------------------|----------------------------|------------------------|
| <b>Reference</b>                      | <b>Type</b>        | <b>Date</b>                | <b>Creator</b>         |
| 19192/PIR Rev1.1                      | Desk Study         | May 2021                   | Soils Limited          |
| ENC/231121/U3D6                       | Utility            | November 2021              | Encompass Surveys Ltd. |
| 7694-08-200 P03                       | Existing Site Plan | 26 <sup>th</sup> June 2023 | FDG                    |
| 7969-08-600 P03                       | Proposed Site Plan | 26 <sup>th</sup> June 2023 | FDG                    |

**Limitations and Disclaimers**

The report was prepared solely for the brief described in our quotation and Section 1.1 of this report. We disclaim any responsibility to the Client and others in respect of any matters outside the scope of our engagement.

We have exercised all reasonable skill, care and diligence within the terms of the Contract with the Client, incorporation of our General Conditions of Contract of Business and taking into account the resources devoted to us by agreement with the Client.

This report is a snapshot of the site and conditions taken only at the time of our investigation works and described in our reporting. The ground is a product of continuing natural and artificial processes, and has variation by depth and location that cannot be determined absolutely. While a ground investigation will aim to understand and mitigate, risk cannot be eliminated.

Current regulations and good practice were used in the preparation of this report. Consideration of any subsequent changes to regulations or practice that may have occurred following issue of this report is the responsibility of the user.

If the term “competent person” is used in this report or any Soils Limited document, it means an engineering geologist or civil engineer with a minimum of three years post graduate experience in the understanding and application of the appropriate codes of practice.

Unless the site investigation works have been designed and specified in accordance with EC7, this report is not a Ground Investigation Report as defined by Eurocode 7.

Any reference to ground level relates to the site level at the time of the investigation, unless otherwise stated. Ground elevations and coordinates are only provided when this forms part of our engagement.

A survey of the possible presence or absence of invasive species including Japanese Knotweed is outside the scope of this investigation.

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License for and reliance on this report is only valid once we have been paid in full for this engagement. In the event of non-payment, we reserve the right to notify parties other than the client of failure to pay and our cancellation of license and reliance.

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## **Section I      Introduction**

### **I.1      Objective of Investigation**

The Client commissioned Soils Limited to undertake an intrusive ground investigation and to prepare a Main Investigation Report to supply the Client and their designers with information regarding ground conditions, to assist in preparing a foundation scheme for development that was appropriate to the settings present on the site.

The report was revised from the previously issued version 19121/MIR Rev101. The report included the additional site investigations conducted after the demolition of the existing building to cover wider areas which were not included in the previous investigation for any potential contaminations and ground conditions.

The investigation was to be made by means of in-situ testing and geotechnical laboratory testing undertaken on soil samples taken from the exploratory holes.

Soil samples were taken for chemical laboratory testing to enable recommendations for the safe redevelopment of the site and the protection of site workers, end-users and the public from any contamination identified as dictated by the Conceptual Site Model (CSM) in the Preliminary Investigation Report undertaken for the site by Soils Limited (Report ref: 19192/PIR Rev1.1, May 2021) and/or the Revised Conceptual Site Model presented in Appendix E.1.

### **I.2      Site Description**

At the time of the investigation in October 2025, there was no structure onsite. The site was hard landscaped, comprising block paving and tarmacadam in poor condition. Weeds noted along cracks in the hardstanding.

However, from previous site walkover in 2021, where a large single storey building, comprising a gym and a food bank, covered the majority of the north of the site with a courtyard separating the gym from the food bank and parking space situated to the south of the site accessed from the east and the west of the site. A car park was located to the southwest corner of the site.

The site was relatively flat and slightly sloped down towards the south in the gradient of  $<1^\circ$ .

The wider surrounding areas were predominantly residential on all four sides and generally flat, slightly sloped down towards the south in the gradient of  $<1^\circ$  with occasional mature trees lining nearby roads.

The site location plan is given in Figure 1.

An aerial photograph of the site and its close environs has been included in Figure 2.

### **1.3 Proposed Development**

The proposal comprises the construction of three 2.5-storey terraced houses, alongside a three-storey apartment building comprising nine residential units. The development includes public open space, domestic gardens and provision for car parking spaces adjacent to the terraced row.

In compiling this report reliance was placed on drawings listed in the Commission Section and recommendations apply only to this scheme. Any changes require consultation with Soils Limited.

Development plans provided by the Client are presented in Appendix F.

### **1.4 Anticipated Geology**

The 1:50,000 BGS Geology map showed the site to be situated on the London Clay Formation bedrock, with overlying superficial River Terrace Deposits.

#### **1.4.1 Superficial – River Terrace Deposits**

The rivers Test and Itchen have deposited extensive spreads of River Terrace Deposits in the Southampton area, representative of ancient floodplains. In total, eleven terraces have been recorded. The River Terrace Deposits consist predominantly of gravels made up of subangular to subrounded flints with a significant sand component locally with lenses of silt, clay or peat.

The five highest terraces have appreciable clay content. Poorly sorted, clayey and sandy silts and silty clays overlie the 1st, 3rd, 5th and 6th terraces and locally at above terrace gravels.

#### **1.4.2 Bedrock – London Clay Formation**

The London Clay Formation in the Hampshire region comprises silty and sandy clay, clayey and sandy silt, silty sand; sporadic claystones and thin beds of flint pebbles. The formation includes the Bognor Sand, Whitecliff Sand, Durley Sand, Portsmouth Sand and Nursling Sand Members. Crystals of gypsum (Selenite) are often found within the weathered part of the London Clay, and precautions against sulphate attack to concrete are sometimes required.

## Section 2      Site Works

### 2.1      Proposed Project Works

The proposed intrusive investigation was designed to provide information on the ground conditions and to aid the design of foundations for the proposed mixed residential and commercial development. The intended investigation, as outlined within the Soils Limited quotation (Q24219 dated 26<sup>th</sup> February 2021), was to comprise the following items:

- 1No. 15m deep cable percussive borehole
- 1No. 10m deep monitoring well
- 1Day Windowless sampler boreholes and dynamic probes
- 3No. dual purpose soil gas and groundwater monitoring wells
- 1No. machine excavated trial pit infiltration test
- Geotechnical laboratory testing
- Geoenvironmental laboratory testing

#### 2.1.1      Actual Project Works

The actual project works were undertaken between 22nd and 24th March 2021 with subsequent laboratory testing and comprised:

- 1No. 15m deep cable percussive borehole
- 3No. windowless sampler boreholes and dynamic probe tests
- 1No. machine excavated trial pit infiltration test
- 4No. well installations
- Geotechnical laboratory testing
- Geoenvironmental laboratory testing

Three windowless sampler boreholes and one cable percussive borehole were backfilled with gravel and bentonite following the installation of monitoring wells. One machine excavate trial pit was backfilled with arising's upon completion and mounded over to allow for future settlement.

### 2.2      Additional Proposed Project Works

The proposed intrusive investigation was designed to provide information on the ground conditions and to aid the design of foundations for the proposed residential development. This additional site investigation conducted after the demolition of the existing building to cover wider areas which were not included in the previous investigation for any potential contaminations and ground conditions. The intended investigation, as outlined within the Soils Limited quotation (Q30459 dated 15<sup>th</sup> September 2025), was to comprise the following items:

- All exploratory holes were scanned with a Cable Avoidance Tool (CAT) and Genny prior to excavation
- 4No. (up to) 4m deep windowless sampler boreholes
- 4No. (up to) 6m deep dynamic probe DPSH

- Contamination laboratory testing

### **2.2.1 Additional Actual Project Works**

The actual project works were undertaken on 7<sup>th</sup> October 2025 with subsequent laboratory testing and comprised:

- All exploratory holes were scanned with a Cable Avoidance Tool (CAT) and Genny prior to excavation
- 4No. 4m deep windowless sampler boreholes (WS101 to WS104)
- 4No. 6m deep dynamic probe DPSH (DP101 to DP104)
- Contamination laboratory testing

All windowless sampler boreholes were backfilled with gravel and arisings upon completion.

Following completion of site works, soil cores were logged and sub-sampled so that samples could be sent to the laboratory for both contamination and geotechnical testing.

All exploratory hole locations have been presented in Figure 3.

### **2.3 Ground Conditions**

During the original investigation on 23<sup>rd</sup> March 2021, three windowless sampler boreholes (WS1, WS2 and WS4) were drilled, using an Archway Competitor type tracked windowless sampler drilling rig, to a depth of 4.00m below ground level (bgl) at locations selected by Soils Limited using a development plan provided by the client.

Standpipes were installed within three windowless sampler borehole locations (WS1, WS2 and WS4) to allow for continued monitoring of both groundwater and soils gas, where present.

Three dynamic probes, super heavy, (DP1, DP2 and DP4) were driven prior and adjacent to their corresponding windowless sampler borehole to depth a depth of 6.00m bgl. WS/DP3 was not carried out due to time constraints.

One trial pit (TPSA1) was machine excavated using a tracked mini digger to a depth of 1.60m bgl to allow for trial pit infiltration testing.

On 24<sup>th</sup> March 2021 a cable percussive borehole was drilled to a depth of 15.00m bgl using a Dando 4000 type drilling rig. Upon completion a 10.00m deep groundwater monitoring well was installed.

During this phase of the investigation conducted on 7<sup>th</sup> October 2025, four windowless sampler boreholes (WS101 to WS104) were drilled, using a Premier Compact 110 Series windowless sampler rig, to a depth of 4.00m below ground level (bgl) at locations selected by Soils Limited using a development plan provided by the Client and concentrating in the area of the former building.

Four super heavy dynamic probes, (DP101 to DP104) were driven prior and adjacent to their corresponding windowless sampler borehole to a depth of 6.00m bgl.

The maximum depths of trial holes have been included in Table 2.1.

**Table 2.1 Final Depth of Trial Holes**

| Exploratory Hole | Depth (m bgl) | Exploratory Hole | Depth (m bgl) |
|------------------|---------------|------------------|---------------|
| TPSA1            | 1.60          | WS/DPI01         | 4.00/6.00     |
| WS/DPI(w)        | 4.00/6.00     | WS/DPI02         | 4.00/6.00     |
| WS/DP2(w)        | 4.00/6.00     | WS/DPI03         | 4.00/6.00     |
| WS/DP4(w)        | 4.00/6.00     | WS/DPI04         | 4.00/6.00     |
| BHI(w)           | 15.00         |                  |               |

**Note(s):** w - well installation. The depths given in this table are taken from the ground level adjacent to the exploratory hole at the time of investigation.

The soil conditions encountered were recorded and soil sampling commensurate with the purposes of the investigation was carried out. The depths given on the trial hole logs and quoted in this report were measured from ground level.

For more complete information about the soils encountered within the general area of the site reference should be made to the detailed records given within Appendix A, but for the purposes of discussion, the succession of conditions encountered in the trial holes in descending order can be summarised as:

**Made Ground (MG)**  
**River Terrace Deposits (RTD)**  
**London Clay Formation (LC)**

The ground conditions encountered in the trial holes are summarised in **Error!**  
**Reference source not found..**

**Table 2.2 Ground Conditions**

| Strata  | Depth Encountered (m bgl) |                                        | Typical Thickness (m)   | Typical Description                                                                                                                                                       |
|---------|---------------------------|----------------------------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | Top                       | Bottom                                 |                         |                                                                                                                                                                           |
| MG      | 0.00                      | 0.30–1.20                              | 0.80                    | Soft to very stiff, dark brown, greyish brown, slightly gravelly slightly sandy cobbly CLAY, with flint, brick, concrete, chalk and clinker. Rare, rusted metal fragment. |
| RTD (c) | 0.30–1.20                 | 1.10–2.30                              | 1.40                    | Firm to stiff, brown mottled greyish brown and orangish brown, slightly sandy slightly gravelly CLAY.                                                                     |
| RTD (g) | 1.10–2.30                 | 4.00 <sup>1</sup> –6.00 <sup>1,3</sup> | (4.70)<br>Where Proven  | Orangish/yellowish brown to brown mottled yellowish brown, slightly clayey very sandy GRAVEL.                                                                             |
| LCF     | 4.00–6.00 <sup>1,3</sup>  | >15.00 <sup>1</sup>                    | Not proven <sup>2</sup> | Firm to stiff, greenish grey silty sandy CLAY.                                                                                                                            |

**Note(s):** <sup>1</sup> Final depth of exploratory hole. <sup>2</sup> Base of strata not encountered. <sup>3</sup> Inferred by dynamic probing. The depths given in this table are taken from the ground level on-site at the time of investigation. c – cohesive soils; g – granular soils

The soils encountered from immediately below ground surface have been described in the following manner. Where the soil incorporated an organic content such as either decomposing leaf litter or roots, or has been identified as part of the in-situ weathering profile, it has been described as Topsoil both on the logs and within this report. Where man has clearly either placed the soil, or the composition altered, with say greater than an estimated 5% of a non-natural constituent, it has been referred to as Made Ground both on the log and within this report.

## 2.4 Ground Conditions Encountered in Exploratory Holes

The ground conditions encountered in exploratory holes have been described below in descending order. The engineering logs are presented in Appendix B.1.

### 2.4.1 Made Ground

Soils described as Made Ground were encountered in all trial holes from ground level to depths ranging between 0.30m (WS2 and WS104) and 1.20m bgl (WS101).

The Made Ground typically comprised soft to very stiff, dark brown, greyish brown, slightly gravelly slightly sandy cobbly CLAY. Sand is fine. Gravel angular to rounded, fine to coarse flint, brick, concrete, chalk and clinker. Occasional decomposing woody roots. Rare, rusted metal fragment.

The established depth of Made Ground found at each exploratory hole location has been included in Table 2.3.

**Table 2.3 Established Depth of Made Ground**

| Exploratory Hole | Depth (m bgl) | Exploratory Hole | Depth (m bgl) |
|------------------|---------------|------------------|---------------|
| BH1              | 0.60          | WS101            | 1.20          |
| TPSA1            | 0.50          | WS102            | 0.45          |
| WS1              | 0.50          | WS103            | 0.40          |
| WS2              | 0.30          | WS104            | 0.30          |
| WS4              | 0.50          |                  |               |

**Note(s):** The depths given in this table are taken from the ground level adjacent to the exploratory hole at the time of investigation.

### 2.4.2 River Terrace Deposits

Soils described as River Terrace Deposits were encountered in all trial holes and were inferred in seven dynamic probes to be present from immediately underlying the base of the Made Ground and were present to depths ranging between 4.00m and 6.00m bgl.

The River Terrace Deposits typically comprised cohesive soils overlying granular soils.

The cohesive soils comprised firm to stiff, brown mottled greyish brown and orangish brown, slightly sandy slightly gravelly CLAY to between 1.10m and 2.30m bgl.

The underlying granular soils comprised orangish/yellowish brown to brown mottled yellowish brown, slightly clayey very sandy GRAVEL. Gravel is angular to sub-angular, fine to coarse flint and chalk from the depth of 2.30m and inferred by dynamic probing up to 6.00m bgl.

The established depth of River Terrace Deposits found at each exploratory hole location has been included in Table 2.4.

**Table 2.4 Established Depth of River Terrace Deposits**

| Exploratory Hole | Depth (m bgl)                        | Exploratory Hole | Depth (m bgl)                        |
|------------------|--------------------------------------|------------------|--------------------------------------|
| BH1              | 5.90                                 | WS/DPI01         | 4.00 <sup>1</sup> /4.80 <sup>2</sup> |
| TPSA1            | 1.60 <sup>1</sup>                    | WS/DPI02         | 4.00 <sup>1</sup> /6.00 <sup>2</sup> |
| WS/DPI           | 4.00 <sup>1</sup> /5.20 <sup>2</sup> | WS/DPI03         | 4.00 <sup>1</sup> /6.00 <sup>2</sup> |
| WS/DP2           | 4.00 <sup>1</sup> /4.60 <sup>2</sup> | WS/DPI04         | 4.00 <sup>1</sup> /4.00 <sup>2</sup> |
| WS/DP4           | 4.00 <sup>1</sup> /4.70 <sup>2</sup> |                  |                                      |

**Note(s):** The depths given in this table are taken from the ground level adjacent to the exploratory hole at the time of investigation. <sup>1</sup> Final depth of exploratory hole. <sup>2</sup>inferred by dynamic probing

### 2.4.3 London Clay Formation

Soils described as the London Clay Formation were encountered in one out of the nine trial holes and were inferred in five dynamic probes from immediately underlying the River Terrace Deposits to the base of the investigation, 15.00m bgl.

The soils of the London Clay Formation were typically described as firm to stiff greenish grey silty sandy CLAY.

The established depth of London Clay Formation found at each exploratory hole location have been included in Table 2.5.

**Table 2.5 Established Depth of London Clay Formation**

| Exploratory Hole | Depth (m bgl)     | Exploratory Hole | Depth (m bgl)     |
|------------------|-------------------|------------------|-------------------|
| BH1              | 0.60              | WSI01            | 1.20              |
| TPSA1            | 0.50              | WSI02            | 0.45              |
| WS1              | 0.50              | WSI03            | 0.40              |
| WS2              | 0.30              | WSI04            | 0.30              |
| WS4              | 0.50              | DPI01            | 6.00 <sup>1</sup> |
| DPI              | 6.00 <sup>1</sup> | DPI02            | Not encountered   |
| DP2              | 6.00 <sup>1</sup> | DPI03            | Not encountered   |
| DP4              | 6.00 <sup>1</sup> | DPI04            | 6.00 <sup>1</sup> |

**Note(s):** The depths given in this table are taken from the ground level adjacent to the exploratory hole at the time of investigation. <sup>1</sup> Final depth of exploratory hole.

## 2.5 Roots

Roots were encountered in seven out of the nine trial holes at depths ranging between 0.50m and 2.30m bgl, as detailed in Table 2.6.

**Table 2.6 Established Depth of Root Penetration**

| Exploratory Hole | Depth (m bgl) | Exploratory Hole | Depth (m bgl) |
|------------------|---------------|------------------|---------------|
| BH1              | None observed | WSI01            | 1.20          |
| TPSA1            | 0.50          | WSI02            | 1.00          |
| WS1              | 1.70          | WSI03            | 2.00          |

| Exploratory Hole | Depth (m bgl) | Exploratory Hole | Depth (m bgl) |
|------------------|---------------|------------------|---------------|
| WS2              | 2.30          | WS104            | None observed |
| WS4              | 2.10          |                  |               |

**Note(s):** The depths given in this table are taken from the ground level adjacent to the exploratory hole at the time of investigation.

Roots may be found to greater depth at other locations on the site particularly close to trees and/or trees that have been removed both within the site and its close environs.

It must be emphasised that the probability of determining the maximum depth of roots from a narrow diameter borehole is low. A direct observation such as from within a trial pit is necessary to gain a better indication of the maximum root depth.

With reference to Google Earth history in the past 20 years, no significant vegetation changes were observed on site.

## 2.6 Groundwater

No groundwater was encountered within all exploratory holes.

Groundwater levels are influenced by seasonal changes and drainage variations. For the site works in March 2021, levels were around their annual maximum. Annual minimum levels typically occur in September.

During the additional site works in August 2025, levels were falling from their annual maximum (around March) toward the annual minimum (typically in September).

The elevation of the site was circa 14.95m Above Ordnance Datum (AOD). The site was not located within a Source Protection Zone (SPZ). And the nearest surface water feature was located circa 753m southwest. Superficial River Terrace Deposits were classified as a Secondary A Aquifer which are 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. London Clay Formation was classified as Unproductive Strata which are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow. Both surface and groundwater were expected to flow towards the south in line with the dominant surrounding topography. Flow through the London Clay Formation was anticipated to be very slow.

Groundwater equilibrium conditions may only be conclusively established, if a series of observations are made via groundwater monitoring wells. No groundwater monitoring was commissioned in this investigation.

## Section 3      Geotechnical In-Situ and Laboratory Testing

### 3.1      Standard Penetration Tests

Standard Penetration Tests (SPTs) were undertaken in BH1. The results were interpreted based on the classifications outlined in Appendix C.1, Table C.1.1 to Table C.1.2.

**Table 3.1 Hammer Efficiency**

| <b>SPT Hammer Ref</b> | <b>Energy Ratio Er (%)</b> |
|-----------------------|----------------------------|
| AR3552                | 69                         |

**Table 3.2 Standard Penetration Tests (SPT) Interpretation**

| <b>Strata</b> | <b>Depth Range (m bgl)</b> | <b>N60 Range</b> | <b>Inferred Strength/Relative Density</b> | <b>Inferred Cu</b> |
|---------------|----------------------------|------------------|-------------------------------------------|--------------------|
| RTD(c)        | 0.60-2.90                  | 26               | High                                      | 130kPa             |
| RTD(g)        | 2.90-6.00                  | 38-41            | Dense                                     |                    |
| LC            | 5.90-15.00                 | 25-38            | High to very high                         | 125 to 190kPa      |

**Note(s):** c-cohesive soils; g – granular soils

A full interpretation of the SPT results, are outlined in Appendix C.2, Table C.2.1.

### 3.2      Dynamic Probe Tests

The results were converted to equivalent SPT “N60” values based on dynamic energy using commercial computer software (Geostru). Interpretation interpreted based on the classifications outlined in Appendix C.1, Table C.1.1 to Table C.1.2.

**Table 3.3 Hammer Efficiency**

| <b>Rig Reference</b> | <b>Energy Ratio Er (%)</b> |
|----------------------|----------------------------|
| Archway              | 80.28                      |
| Premier 4            | 90.85                      |

**Table 3.4 Inferred SPT Interpretation**

| <b>Strata</b> | <b>Depth Range (m bgl)</b> | <b>Inferred N60 Range</b> | <b>Inferred Strength/Relative Density</b>        |
|---------------|----------------------------|---------------------------|--------------------------------------------------|
| RTD(c)        | 0.30-2.30                  | 0-39                      | Extremely low to very high<br>Cu = <10 to 195kPa |
| RTD (g)       | 2.30-6.00                  | 13->50                    | Medium dense to very dense                       |
| LC            | 4.00-6.00                  | 8-22                      | Medium to high<br>Cu = 40 to 110kPa              |

**Note(s):** SPT “N60” values presented have been corrected in accordance with BS EN 22476 Part 3

A full interpretation of the DPSH tests, are outlined in Appendix C.2, Table C.2.2.

### 3.3 Infiltration Tests

Infiltration testing was undertaken in TPSA1 within the River Terrace Deposits following the principles of BRE Digest 365 Soakaway design: 2016. BRE 365 states that for an accurate infiltration rate to be obtained a soakage pit needs to be filled three times in quick succession. Each test can only be ended once 75% of the water present has drained away.

A single test was attempted in TPSA1 however the test did not complete in the time available due to slow infiltration and therefore the test result was extrapolated, and the results outlined in Table 3.5.

**Table 3.5 Infiltration Rates**

| <b>Trial Hole</b> | <b>Test No.</b> | <b>Infiltration Rate (m/s)</b> | <b>Note</b>                                                                      |
|-------------------|-----------------|--------------------------------|----------------------------------------------------------------------------------|
| TPSA1             | 1               | $1.6 \times 10^{-6}$           | Estimated based on extrapolating the measured data.<br>Must be used with caution |

### 3.4 Quick Unconsolidated Undrained Triaxial Compression Tests

Quick Unconsolidated Undrained Triaxial Compression Tests (QUU) were performed on three samples obtained from the London Clay Formation. The strength interpretation was based on the classification outlined in Table C.1.1.

Soils of the London Clay Formation were of a medium becoming very high strength with undrained cohesions of between 42kPa and 166kPa, generally increasing with depth.

A full interpretation of the QUU tests is outlined in Table C.2.3, Appendix C.2 and the laboratory report in Appendix C.2.

### 3.5 Atterberg Limit Tests

Atterberg Limit tests were performed on four samples, three obtained from the cohesive parts of the River Terrace Deposits and the remaining one sample from the London Clay Formation. The results were classified in accordance with BRE Digest 240 and NHBC Standards Chapter 4.2.

**Table 3.6 Atterberg Limit Results Classification**

| <b>Strata</b> | <b>Depth<br/>(m bgl)</b> | <b>Classification</b> |                |
|---------------|--------------------------|-----------------------|----------------|
|               |                          | <b>NHBC</b>           | <b>BRE 240</b> |
| RTD (c)       | 0.80-1.20                | Low to Medium         | Low to Medium  |
| LC            | 13.50                    | Medium                | Medium         |

Details are given in Table C.2.4, Appendix C.2 and the laboratory report in Appendix C.2.

### 3.6 Particle Size Distribution Tests

Particle Size Distribution (PSD) tests were performed on four samples from the granular soils of the River Terrace Deposits.

**Table 3.7 Particle Size Distribution Classification**

| Strata  | Depth<br>(m bgl) | Classification |         |
|---------|------------------|----------------|---------|
|         |                  | NHBC           | BRE 240 |
| RTD (g) | 1.30-3.00        | None           | None    |

Note that a cohesive soil is only classified as having a volume change potential if it is also plastic and an Atterberg Limit test can be conducted on the strata.

A full interpretation of the PSD tests, are outlined in Table C.2.5, Appendix C.2 and the laboratory report in Appendix C.2.

### 3.7 Sulphate and pH Tests

Two samples were taken from the River Terrace Deposits (WS2:1.30m bgl and WS4:2.20m bgl) and one from the London Clay Formation (BH1:9.00m bgl) for water soluble sulphate (2:1) and pH testing in accordance with Building Research Establishment Special Digest 1, 2005, 'Concrete in Aggressive Ground'.

**Table 3.8 Sulphate and pH Test Results**

| Strata | Depth (m bgl) | Sulphate Concentration (mg/l) | pH      |
|--------|---------------|-------------------------------|---------|
| RTD    | 1.30-2.20     | 19-28                         | 7.8-8.2 |
| LC     | 9.00          | 270                           | 8.1     |

The significance of the sulphate and pH Test results are discussed in Section 5.2 and the laboratory report in Appendix C.2.

## **Section 4      Engineering Appraisal**

### **4.1      Established Ground Conditions**

An engineering appraisal of the soil types encountered during the site investigation and likely to be encountered during the redevelopment of this site is presented. Soil descriptions are based on analysis of disturbed samples taken from the exploratory holes.

#### **4.1.1      Made Ground and Topsoil**

Soils described as Made Ground were encountered in all trial holes from ground level to depths ranging between 0.30m (WS2 and WS104) and 1.20m bgl (WS101).

Foundations must not be placed on non-engineered fill unless such use can be justified on the basis of a thorough ground investigation and detailed design. Foundations must be taken through any Topsoil and/or Made Ground and either into, or onto a suitable underlying natural stratum of adequate bearing characteristics.

#### **4.1.2      River Terrace Deposits**

Soils described as River Terrace Deposits were encountered in all trial holes and were inferred in seven dynamic probes to be present from immediately underlying the base of the Made Ground and were present to depths ranging between 4.00m and 6.00m bgl.

Soils of the River Terrace Deposits are normally consolidated, predominantly cohesive soils to between 1.10m and 2.30m bgl, as such are expected to display low to moderate bearing capacities with moderate settlement characteristics. The cohesive soils overlay granular soils of the River Terrace Deposits which extended to between 4.00m and 6.00m bgl that are expected to have moderate to high bearing and settlement characteristics.

The granular soils of the River Terrace Deposits are considered suitable bearing stratum for the proposed development.

#### **4.1.3      London Clay Formation**

Soils described as the London Clay Formation were encountered in one out of the nine trial holes and were inferred in five dynamic probes from immediately underlying the River Terrace Deposits to the base of the investigation, 15.00m bgl. The soils of the London Clay Formation were typically described as firm to stiff greenish grey silty sandy CLAY.

The soils of the London Clay Formation are heavily overconsolidated, predominantly cohesive soils and were anticipated to provide moderate bearing and settlement characteristics. The soils of the London Clay Formation were considered to be a suitable bearing stratum providing that a deep piled foundation solution was adopted.

#### **4.1.4      Guidance on Shrinkable Soils**

The ground conditions were established as cohesive and granular soils of the River Terrace Deposits overlying the bedrock of London Clay Formation.

The volume change potential for the strata was established and presented in Table 4.1.

**Table 4.1 Established Volume Change Potential by Strata**

| <b>Strata</b> | <b>Volume Change Potential</b> |             | <b>Established Lower Boundary<br/>(m bgl)</b> |
|---------------|--------------------------------|-------------|-----------------------------------------------|
|               | <b>BRE</b>                     | <b>NHBC</b> |                                               |
| RTD (c)       | Medium                         | Medium      | 2.30                                          |
| RTD (g)       | None                           | None        | 5.90 (where proven)                           |
| LC            | Medium                         | Medium      | 15.00m+ Not Proven                            |

Medium potential volume change should be adopted in both the River Terrace Deposits and the London Clay Formation.

#### **4.1.5 Groundwater**

No groundwater was encountered within all exploratory holes.

## Section 5      Foundation Scheme

### 5.1      Foundation Recommendations

Foundations **must not** be constructed within any Made Ground/Topsoil due to the likely variability and potential for large load induced settlements both total and differential.

Roots were encountered in seven out of the nine trial holes at depths ranging between 0.50m and 2.30m bgl. If roots are encountered during the construction phase foundations **must not be placed within any live root penetrated** or desiccated **cohesive soils or those with a volume change potential**. Should the foundation excavations reveal such materials, the excavations **must** be extended to greater depth in order to bypass these unsuitable soils. Excavations must be checked by a suitable person prior to concrete being poured.

Considering the type of development, a shallow foundation solution was considered the most suitable.

#### 5.1.1      Shallow Foundations In the Granular River Terrace Deposits

Based on a 5.00 by 0.75m strip foundation, using commercial software Table 5.1 shows the calculated bearing values and anticipated settlement characteristics. Made Ground was noted a depth up to 1.20m bgl in WS101 and rootlets were observed up to 2.30m bgl with average of 1.70m bgl. The granular River Terrace Deposits were found from the shallowest at 1.10m bgl therefore bearing capacities were calculated below this depth.

**Table 5.1 Allowable Bearing Capacities in the River Terrace Deposits**

| Depth (m bgl)     | Size (m)    | Bearing Capacity (kPa) | Anticipated Settlement (mm) |
|-------------------|-------------|------------------------|-----------------------------|
| 1.50 <sup>1</sup> | 5.00 x 0.75 | 100                    | <25                         |
| 2.00              |             | 140                    | <25                         |

**Note:** <sup>1</sup>locally deepen to ensure founding in the granular soils.

All foundation formations must be examined, recorded, and signed off by a competent person.

Care must be exercised where foundations pass over soils of different engineering properties or different soil types to minimise the potential effects of differential settlements.

For the allowable bearing value given above, settlements should not exceed the presented values, provided that excavation bases are carefully bottomed out and blinded or concreted as soon after excavation as possible and kept dry.

Foundations must not be constructed over former structures and other hard spots. The foundations design must be suitable for the conditions present at the site.

The anticipated settlement includes both elastic settlement and long-term drained settlement (in the case of cohesive soils).

Anticipated settlements may be taken as proportional to the bearing capacity adopted (for the same configuration of foundation), therefore if the bearing value is halved the anticipated settlement will halve.

It has been assumed that the foundations to any existing structures have been grubbed out. Where foundations have been grubbed out the new foundation must be taken through any backfill material into suitable natural ground as outlined in this report.

### **5.1.2 Piled Foundations**

If adopted the piled foundations must be taken through any Made Ground and River Terrace Deposits into suitable strength soils of the London Clay Formation .

The construction of a piled foundation is a specialist job with the actual pile working load depending on the pile type and installation method. Prior to finalising the foundation design the advice from a reputable contractor who is familiar with the ground and groundwater conditions present at the site must be sought.

The vertical load capacities are provided for varying diameters and lengths of bored piles taken into the London Clay Formation, based on geotechnical laboratory testing and in-situ testing and must only be used for preliminary design purposes.

A factor of safety of 3 was applied to the characteristic line derived from testing undertaken, for both design values were calculated using an  $\alpha$  factor of 0.45 for shaft resistance and an  $N_c$  value of 9 for base resistance.

The bearing values given in Appendix D.1. are applicable to single vertically loaded piles. Where piles are to be constructed in groups the bearing value of each individual pile should be reduced by a factor of about 0.8 and a calculation made to check the factor of safety against block failure.

From ground level the upper 5m of the pile shaft has been ignored in the preliminary pile design given.

To prevent necking of the green concrete, temporary casing may be required where the pile passes through the Made Ground or London Clay Formation and below the groundwater table (if encountered). To achieve the full bearing value a pile should penetrate the bearing stratum by at least five times the pile diameter.

No allowance has been made for negative skin friction that could be generated where piles pass through Made Ground and very soft cohesive and / or organic soils underlying the site. The negative skin friction must be applied to the pile working load and must not be factored.

## **5.2 Subsurface Concrete**

The sulphate and pH tests carried out in accordance with BRE Special Digest 1, 2005, 'Concrete in Aggressive Ground', established the site concrete classifications for each

stratum as presented in Table 5.2.

**Table 5.2 Concrete Classification**

| <b>Stratum</b> | <b>Design Sulphate Class</b> | <b>ACEC Class</b> |
|----------------|------------------------------|-------------------|
| RTD            | DS-I                         | AC-I              |
| LC             | DS-I                         | AC-Is             |

Concrete to be placed in contact with soil or groundwater must be designed in accordance with the recommendations of Building Research Establishment Special Digest 1 2005, '*Concrete in Aggressive Ground*' taking into account any possible exposure of potentially pyrite bearing natural ground and the pH of the soils.

### **5.3 Excavations**

Shallow excavations in the Made Ground/Topsoil and the cohesive soils of the River Terrace Deposits are likely to be marginally stable in the short term at best.

Deeper excavations taken into the granular soils of the River Terrace Deposits and London Clay Formation are likely to be unstable and require support. Unsupported earth faces formed during excavation may be liable to collapse without warning and suitable safety precautions must therefore be taken to ensure that such earth faces are adequately supported or battered back to a safe angle of repose.

Excavations beneath the groundwater table are likely to be unstable and dewatering of foundation trenches may be necessary.

## **Section 6      Site Drainage**

### **6.1      Soakaways**

The Trial Pit Soakage test carried out in TPSA1 did not complete in the time available due to slow infiltration. The extrapolated infiltration rate was  $1.6 \times 10^{-6}$  m/sec was calculated.

## **Section 7      Determination of Chemical Analysis**

### **7.1      Site Characterisation and Revised Conceptual Site Model**

The Preliminary Investigation Report undertaken by Soils Limited (report ref: 19192/PIR dated May 2021) identified no risk of ground contamination from previous usage of the site or offsite sources.

The Main Investigation Report identified Made Ground to a depth of up to 1.20m bgl and in one trial hole (WS2) “organic / hydrocarbon” type odour was recorded between 1.60m and 2.30m bgl during detailed logging within the River Terrace Deposits and targeted environmental testing was scheduled within both Made Ground at 0.40m bgl and River Terrace Deposits at 3.30m bgl in WS2. The preliminary conceptual site model was updated to take these sources into account.

Soils described as Made Ground were encountered in all trial holes from ground level to depths ranging between 0.30m and 1.20m bgl.

The Made Ground typically comprised soft to very stiff, dark brown, greyish brown, slightly gravelly slightly sandy cobbly CLAY. Sand is fine. Gravel angular to rounded, fine to coarse flint, brick, concrete, chalk and clinker. Occasional decomposing woody roots. Rare, rusted metal fragment.

### **7.2      Soil Sampling**

Exploratory hole locations were established to provide an overview of ground conditions across the site in relation to the proposed construction, together with enabling the collection of samples to enable chemical characterisation of the underlying strata.

Representative samples for potential environmental testing were obtained from the exploratory holes at depths of between 0.20m and 3.30m to allow appropriate representation of the materials encountered, with additional samples to be obtained, if necessary, where there was visual or olfactory evidence of contamination.

Unless otherwise stated, analytical testing was based initially on a screening suite of commonly identified inorganic and organic contaminants, taking into account the prevailing site conditions and the findings of the conceptual site model.

### **7.3      Determination of Chemical Analysis**

The driver for determination of the analysis suite was the information obtained from the Preliminary Investigation Report and this investigation.

The chemical analyses were carried out on 2No samples of Made Ground and 5No samples of the River Terrace Deposits. Additional chemical analyses were carried out on 3No samples of Made Ground. The nature of the analyses is detailed in Table 7.1.

**Table 7.1 Chemical Analyses Suites - Soil**

| <b>No. of Tests</b> |            | <b>Determinants</b>                                                                                                                           |
|---------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MG</b>           | <b>RTD</b> |                                                                                                                                               |
| 5                   | 5          | Metal suites: Arsenic, Boron (Water Soluble), Cadmium, Chromium (total & hexavalent), Copper, Lead, Mercury, Nickel, Selenium, Vanadium, Zinc |
| 5                   | 5          | Organic Matter                                                                                                                                |
| 5                   | 5          | pH                                                                                                                                            |
| 5                   | 5          | Polycyclic aromatic hydrocarbons (PAH) – (EPA 16)                                                                                             |
| 5                   | 5          | Phenols – total monohydric                                                                                                                    |
| 5                   | 5          | Extractable petroleum hydrocarbons (EPH) – Texas banding                                                                                      |
| 2                   |            | Total petroleum hydrocarbons (TPH) – CWG banding                                                                                              |
| 2                   |            | BTEX and MTBE                                                                                                                                 |
| 2                   |            | Cyanide total & free                                                                                                                          |
| 2                   |            | Polychlorinated biphenyls (PCB) – 7 Congeners                                                                                                 |
| 5                   | 5          | Asbestos screening                                                                                                                            |

The soil testing was carried out in compliance with the MCERTS performance standard, and the results are shown in Appendix E.2, test reports 21-04413.1 and L25-11007-SLT - 25-86768.

## Section 8 Qualitative Risk Assessment

### 8.1 Assessment Criteria

The assessment criteria used to determine risks to human health are derived and explained within Appendix E.3.

### 8.2 Representative Contamination Criteria - Soil

The proposal comprises the construction of three 2.5-storey terraced houses, alongside a three-storey apartment building comprising nine residential units. The development includes public open space or domestic gardens and provision for car parking spaces adjacent to the terraced row. In compiling this report reliance was placed on drawings listed in the Commission Section and recommendations apply only to this scheme. Any changes require consultation with Soils Limited. Soils Limited must be notified about any change or deviation from the scheme outlined.

Based on the proposed development, the results of the chemical analysis have been compared against generic assessment criteria (GAC) for a '**Residential with home grown produce**' end use, as presented in SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination December 2014 (C4SL), derived for the protection of human health. Where this document has not published screening values for determinants, GACs derived for the same end use have been adopted from the following published guidance; DEFRA Soil Guideline Values (SGV) and LQM/CIEH/Suitable 4 Use Level (S4UL).

To assess the potential toxicity of organic determinants (Petroleum Hydrocarbons and Polyaromatic Hydrocarbons) to the human health, soils samples were analysed for Soil Organic Matter (SOM). The selected samples analysed recorded, SOM values of between <0.1% and 1.3%. For each soil sample tested, the resultant SOM allowed for the correct comparison to be made with the appropriate guideline value for each organic determinant analysed.

#### 8.2.1 Risk Assessment – Made Ground

Table 8.1 outlines any samples that have exceeded their relevant assessment criteria. The full laboratory report is presented in Appendix E.2.

**Table 8.1 Summary of GAC Exceedances – Made Ground**

| Location | Depth (m bgl) | Contaminant | Concentration | Guidance Level |
|----------|---------------|-------------|---------------|----------------|
| None     |               |             |               |                |

The risk assessment has established no pollutant linkage in relation to human health within the Made Ground.

#### 8.2.2 Risk Assessment – River Terrace Deposits

Table 8.2 outlines any samples that have exceeded their relevant assessment criteria. The full laboratory report is presented in Appendix E.2.

**Table 8.2 Summary of GAC Exceedances – River Terrace Deposits**

| Location | Depth (m bgl) | Contaminant | Concentration | Guidance Level |
|----------|---------------|-------------|---------------|----------------|
| None     |               |             |               |                |

The risk assessment has established no pollutant linkage in relation to human health within the River Terrace Deposits.

### 8.3 Asbestos

The test certificate for each sample submitted for contamination analysis during this investigation includes the results of an Asbestos Screen.

In each case 'Not detected' was reported.

This finding does not obviate the risk of asbestos being present on the site and the Client must seek advice from qualified and competent asbestos specialist during and prior to undertaking works to ensure compliance with appropriate legislation and guidance.

### 8.4 Risk to Controlled Waters

Taking into consideration the ground conditions encountered and the lack of contaminant concentrations observed, there is not considered to be any significant risk to controlled waters and no further assessment deemed necessary at this time.

The proposed development will need to consider the implementation of a new drainage regime on site, as such the proposed development is considered to provide a betterment of site conditions where site drainage would not follow a pathway to impact on third party land or property.

### 8.5 Risk from Ground Gas Ingression

The Preliminary Investigation Report identified no risk of ground gas from offsite sources and the intrusive investigation did not identify any significant sources of ground gas. Therefore, it is considered that there is negligible risk from ground gas.

#### 8.5.1 Radon

The site **was not situated** within an area where protection or risk assessment against the ingress of radon was required. Radon protective measures **will not be required** within the proposed new development.

### 8.6 Generic Quantitative Risk Assessment

Quantitative risk assessments were undertaken for soil and groundwater. The CSM has been updated to take account of the assessments below and presented in Appendix E.1. The full laboratory chemical report is presented in Appendix E.2.

### **8.6.1 Soils**

The Tier 1 Quantitative risk assessment established that there was **no risk to the human health receptors** of construction workers or future end-users.

### **8.6.2 Controlled Waters**

The Groundwater Risk Assessment established that **there was no risk** to the groundwater receptor.

### **8.6.3 Ground Gas**

There is negligible risk from ground gas and no further assessment is required.

## **8.7 Recommendations**

Soils testing undertaken did not indicate any further works were required subjected to Local Authority approval and with an emplacement of a discovery strategy.

## **8.8 Protection of Services**

Contamination of the ground may pose a risk to human health by permeating potable water supply pipes. To fulfil their statutory obligations, UK water supply companies require robust evidence from developers to demonstrate either that the ground in which new plastic supply pipes will be laid is free from contaminants specified in UKWIR Report 10/WM/03/21 Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites (UKWIR, 2010), or that the proposed remedial strategy will mitigate any existing risk.

## **8.9 Duty of Care**

Groundworkers must maintain a good standard of personal hygiene including the wearing of overalls, boots, gloves and eye protectors and the use of dust masks during periods of dry weather.

## **8.10 Excavated Material**

Excavated material as waste must be defined or classified prior to any disposal, transport, recycling or re-use at or by an appropriately licensed or exempt carrier and/or off-site disposal facility. The requirements inherent in both Duty of Care and Health and Safety must also be complied with. In order to determine what is to happen, what is suitable, appropriate and most effective in the disposal of wastes, especially those subject to CDM waste management plan requirements, several factors must be considered, and competent advice must always be sought.

## **8.11 HazWasteOnline**

Further consideration of results using HazWasteOnlineTM can be undertaken on request to give an indication of potentially hazardous properties in the materials analysed.

**8.12 Re-use of Excavated Material On-site**

The re-use of on-site soils may be undertaken either under the Environmental Permitting Regulations 2007 (EPR), in which case soils other than uncontaminated soils are classed as waste, or under the CL:AIRE Voluntary Code of Practice (CoP) which was published in September 2008 and is accepted as an alternative regime to the EPR.

**8.13 Imported Material**

Any soil, which is to be imported onto the site, must undergo chemical analysis to permit classification prior to its importation and placement in order to ascertain its status with specific regard to contamination, i.e. to prove that it is suitable for the purpose for which it is intended.

**8.14 Discovery Strategy**

There may be areas of contamination not identified during the investigation. Such occurrences may also be discovered during the demolition and construction phases for the redevelopment of the site.

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### **Appendix C Geotechnical In-Situ and Laboratory Testing**

Appendix C.1 Classification

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### **Appendix D Foundation Design**

Appendix D.1 Preliminary Pile Design

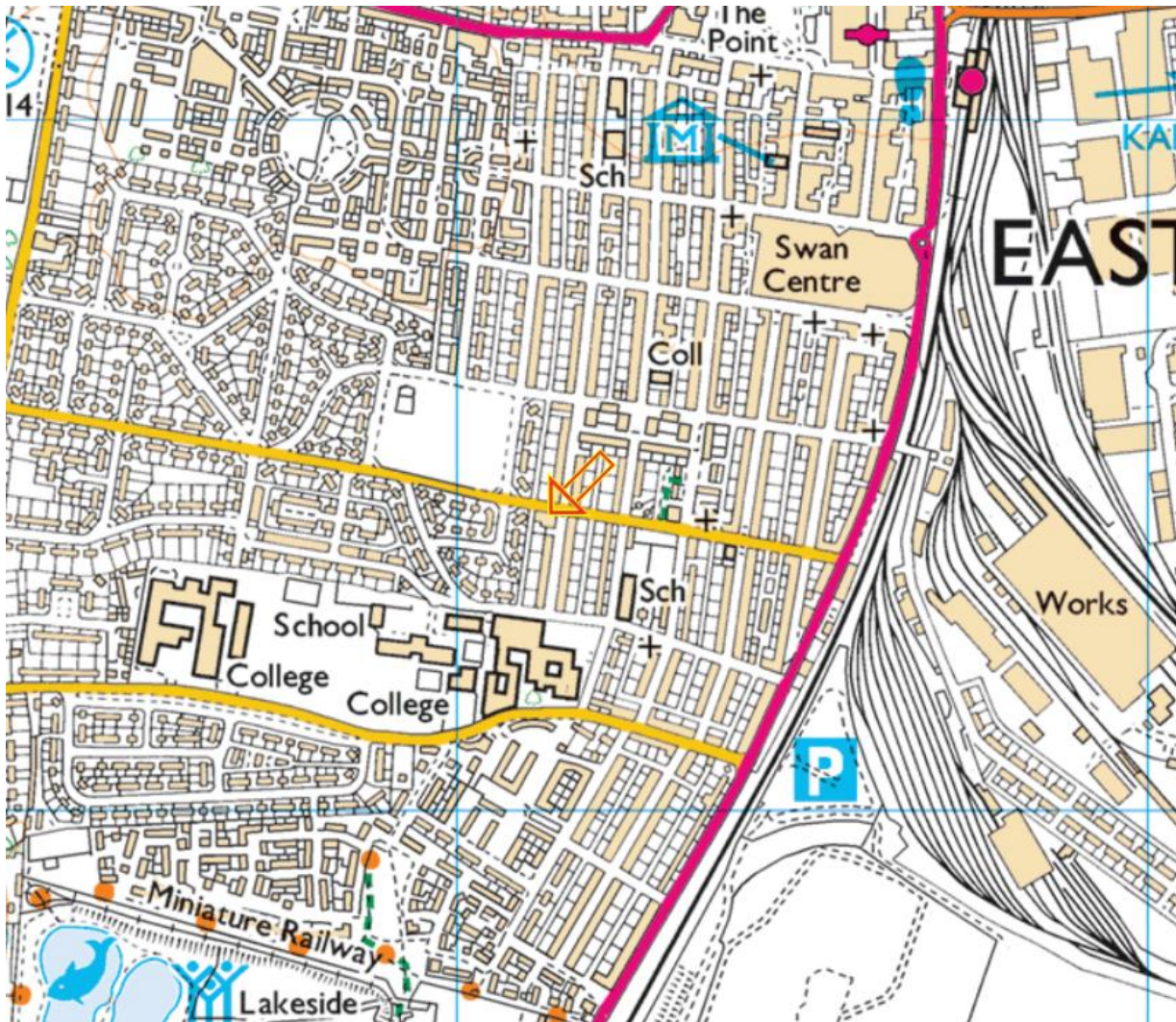
### **Appendix E Chemical Laboratory Analyses**

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### **Appendix F Information Provided by the Client**



**Figure 1 – Site Location Map**

**Job Number**  
19192

**Project**

Samsons Gym, 237 Chamberlayne Road, Eastleigh,  
Hampshire SO50 5JB

**Client**  
Eastleigh Borough Council

**Date**  
November 2025



**Figure 2 – Aerial Photograph**



**Job Number**  
19192

**Project**  
237 Chamberlayne Road, Eastleigh, Hampshire  
SO50 5JB

**Client**  
Eastleigh Borough Council

**Date**  
November 2025



**Figure 3 – Exploratory Hole Plan**



**Job Number**  
19192

**Project**  
237 Chamberlayne Road, Eastleigh, Hampshire  
SO50 5JB

**Client**  
Eastleigh Borough Council

**Date**  
November 2025

## **Appendix A     Standards and Resources**

The site works, soil descriptions and geotechnical testing were undertaken in accordance with the following standards where applicable:

- BS 5930:2015 and BS EN ISO 22476-2&3:2005+A1:2011
- BS EN 1997-1:2004+A1:2013 Eurocode 7. Geotechnical design
- BS EN ISO 14688-1:2018 - Geotechnical investigation and testing - Identification and description
- BS EN ISO 14688-2:2018 - Geotechnical investigation and testing - Principles for a classification
- BS 10175:2011+A2:2017 - Investigation of potentially contaminated sites
- LCRM 2021 Environment Agency
- BS 8004:2015 – Code of practice for foundations
- BS 1377:1990 Parts 1 to 8
- BRE Digest 241 “Low-rise buildings on shrinkable clay soils: Part 2
- BRE Special Digest 1, 2005, ‘Concrete in Aggressive Ground’
- Stroud, M. A. 1974, “The Standard Penetration Test – its application and interpretation”, Proc. ICE Conf. on Penetration Testing in the UK, Birmingham. Thomas Telford, London.
- N.E. Simons, B.K. Menzies, “A Short Course in Foundation Engineering”
- NHBC Standards Chapter 4.2, January 2025.
- SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination December 2014
- CIRIA C733, Asbestos in soil and made ground: a guide to understanding and managing risks and CAR2012 regulations.
- Google Earth accessed in November 2025
- British Geological Survey Website & iGeology App accessed in November 2025

## **Appendix B    Field Work**

### **Appendix B.I    Engineers Logs**

|                                                                                              |                 |                   |              |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      |                          |        |                        |  |
|----------------------------------------------------------------------------------------------|-----------------|-------------------|--------------|---------|-----------------------------|----------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------|--------------------------|--------|------------------------|--|
| <div></div> |                 |                   |              |         | Window Sampler              |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          | WS101<br>Sheet 1 of 1                                |                          |        |                        |  |
|                                                                                              |                 |                   |              |         | Hole Type<br>WS             |                                  | Easting                                                                            |                                                                                                                                                                                                                                                       | Northing |                                                      | Ground Level (m)         |        | Scale<br>1:50          |  |
|                                                                                              |                 |                   |              |         | Project Name<br>Samsons Gym |                                  |                                                                                    | Project No.<br>22136                                                                                                                                                                                                                                  |          |                                                      | Start Date<br>2025-10-07 |        | End Date<br>2025-10-07 |  |
| Client<br>Eastleigh Borough Council                                                          |                 |                   |              |         | Consultant<br>ML            |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          | Contractor<br>Soils Limited                          |                          |        |                        |  |
| Inst/<br>Backfill                                                                            | Water<br>Levels | Samples and Tests |              |         | Level<br>(m)                | Depth<br>(m)                     | Strata                                                                             |                                                                                                                                                                                                                                                       |          |                                                      |                          |        |                        |  |
|                                                                                              |                 | Depth (m)         | Type/<br>Ref | Results |                             |                                  | Legend                                                                             | Description                                                                                                                                                                                                                                           |          |                                                      |                          |        |                        |  |
|                                                                                              |                 |                   |              |         |                             | (0.25)<br>0.25<br>(0.10)<br>0.35 |   | CONCRETE                                                                                                                                                                                                                                              |          |                                                      |                          |        |                        |  |
|                                                                                              |                 | 0.40              | ES           |         |                             | (0.45)<br>0.80<br>(0.40)         |   | BRICK. MADE GROUND.                                                                                                                                                                                                                                   |          |                                                      | 0.5                      |        |                        |  |
|                                                                                              |                 | 0.60              | ES           |         |                             |                                  |                                                                                    | Very stiff becoming firm to stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine. Gravel angular to rounded, fine to coarse flint, brick, chalk and clinker. Occasional decomposing woody roots.                                   |          |                                                      |                          |        |                        |  |
|                                                                                              |                 | 0.60              | D            |         |                             |                                  |                                                                                    | MADE GROUND.                                                                                                                                                                                                                                          |          |                                                      | 1.0                      |        |                        |  |
|                                                                                              |                 | 0.90              | ES           |         |                             | 1.20                             |   | Firm brown mottled greyish brown, and yellowish brown, slightly gravelly slightly sandy CLAY. Gravel angular to rounded, fine to coarse flint, brick, chalk and clinker. Occasional decomposing woody roots. Rare rusted metal fragment. MADE GROUND. |          |                                                      | 1.5                      |        |                        |  |
|                                                                                              |                 | 0.90              | D            |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      |                          |        |                        |  |
|                                                                                              |                 | 1.30              | ES           |         |                             | (1.10)                           |   | Firm greyish brown mottled brown and dark brown, slightly sandy gravelly CLAY. Gravel is angular to sub-angular, fine to coarse flint and chalk. Grades into clayey gravel near base of stratum. (RIVER TERRACE DEPOSITS)                             |          |                                                      | 2.0                      |        |                        |  |
|                                                                                              |                 | 1.30              | D            |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      |                          |        |                        |  |
|                                                                                              |                 | 1.80              | D            |         |                             | 2.30                             |   | Yellowish brown mottled brown, clayey very sandy GRAVEL. Gravel is angular to sub-angular, fine to coarse flint. (RIVER TERRACE DEPOSITS)                                                                                                             |          |                                                      | 2.5                      |        |                        |  |
|                                                                                              |                 | 2.20              | D            |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      |                          |        |                        |  |
|                                                                                              |                 | 2.40              | D            |         |                             | (1.40)                           |   |                                                                                                                                                                                                                                                       |          |                                                      | 3.0                      |        |                        |  |
|                                                                                              |                 | 2.90              | D            |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      |                          |        |                        |  |
|                                                                                              |                 | 3.40              | D            |         |                             | 3.70<br>(0.30)<br>4.00           |  | Yellowish brown mottled light brown, slightly silty/clayey SAND AND GRAVEL. Gravel is angular to sub-angular, fine to coarse flint. (RIVER TERRACE DEPOSITS)                                                                                          |          |                                                      | 3.5                      |        |                        |  |
|                                                                                              |                 | 3.80              | D            |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      |                          |        |                        |  |
|                                                                                              |                 |                   |              |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      | 4.0                      |        |                        |  |
|                                                                                              |                 |                   |              |         |                             |                                  |                                                                                    | End of Borehole at 4.00m                                                                                                                                                                                                                              |          |                                                      | 4.5                      |        |                        |  |
|                                                                                              |                 |                   |              |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      | 5.0                      |        |                        |  |
|                                                                                              |                 |                   |              |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      | 5.5                      |        |                        |  |
|                                                                                              |                 |                   |              |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      | 6.0                      |        |                        |  |
|                                                                                              |                 |                   |              |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      | 6.5                      |        |                        |  |
|                                                                                              |                 |                   |              |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      | 7.0                      |        |                        |  |
|                                                                                              |                 |                   |              |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      | 7.5                      |        |                        |  |
|                                                                                              |                 |                   |              |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      | 8.0                      |        |                        |  |
|                                                                                              |                 |                   |              |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      | 8.5                      |        |                        |  |
|                                                                                              |                 |                   |              |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      | 9.0                      |        |                        |  |
|                                                                                              |                 |                   |              |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      | 9.5                      |        |                        |  |
|                                                                                              |                 |                   |              |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      | 10.0                     |        |                        |  |
| Remarks<br>Rootlets observed to 1.20m bgl.                                                   |                 |                   |              |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          | Method, Plant, Stability, Dimensions<br>0.00 - 4.00m |                          | Logger |                        |  |
| Checked By: ML    Status: FINAL                                                              |                 |                   |              |         |                             |                                  |                                                                                    |                                                                                                                                                                                                                                                       |          |                                                      |                          |        |                        |  |

|                                               |                 |                   |                      |          |                                                                    |                          |                                                      |                                                                                                                                                                                                                           |        |
|-----------------------------------------------|-----------------|-------------------|----------------------|----------|--------------------------------------------------------------------|--------------------------|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| <div><div>soils</div><div>LIMITED</div></div> |                 |                   |                      |          | <div>Window Sampler</div> <div>WS102</div> <div>Sheet 1 of 1</div> |                          |                                                      |                                                                                                                                                                                                                           |        |
| Hole Type<br>WS                               |                 | Easting           |                      | Northing |                                                                    | Ground Level (m)         |                                                      | Scale<br>1:50                                                                                                                                                                                                             |        |
| Project Name<br>Samsons Gym                   |                 |                   | Project No.<br>22136 |          |                                                                    | Start Date<br>2025-10-07 |                                                      | End Date<br>2025-10-07                                                                                                                                                                                                    |        |
| Client<br>Eastleigh Borough Council           |                 |                   |                      |          | Consultant<br>ML                                                   |                          | Contractor<br>Soils Limited                          |                                                                                                                                                                                                                           |        |
| Inst/<br>Backfill                             | Water<br>Levels | Samples and Tests |                      |          | Level<br>(m)                                                       | Depth<br>(m)             | Strata                                               |                                                                                                                                                                                                                           |        |
|                                               |                 | Depth (m)         | Type/<br>Ref         | Results  |                                                                    |                          | Legend                                               | Description                                                                                                                                                                                                               |        |
|                                               |                 |                   |                      |          |                                                                    | (0.25)                   |                                                      | CONCRETE                                                                                                                                                                                                                  |        |
|                                               |                 | 0.40              | ES                   |          |                                                                    | 0.25                     |                                                      | Red mottled black and brown, clayey gravelly brick COBBLES. Gravel is angular to sub-angular, fine to coarse brick, clinker and chalk. MADE GROUND.                                                                       | 0.5    |
|                                               |                 | 0.60              | ES                   |          |                                                                    | 0.10                     |                                                      |                                                                                                                                                                                                                           |        |
|                                               |                 | 0.60              | D                    |          |                                                                    | 0.35                     |                                                      |                                                                                                                                                                                                                           |        |
|                                               |                 | 0.90              | ES                   |          |                                                                    | 0.10                     |                                                      |                                                                                                                                                                                                                           |        |
|                                               |                 | 0.90              | D                    |          |                                                                    | 0.45                     |                                                      | Very low sample in liner. (0.25 - 0.35m)                                                                                                                                                                                  |        |
|                                               |                 | 1.30              | D                    |          |                                                                    | (1.05)                   |                                                      | Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine. Gravel angular to rounded, fine to medium flint, brick, chalk and clinker. Occasional rootlets. MADE GROUND.                                     | 1.0    |
|                                               |                 | 1.60              | D                    |          |                                                                    | 1.50                     |                                                      |                                                                                                                                                                                                                           | 1.5    |
|                                               |                 | 2.10              | D                    |          |                                                                    | (0.70)                   |                                                      | Stiff brown mottled greyish brown and orangish brown, slightly silty sandy CLAY. Sand is fine to medium. Highly bioturbated. Occasional rootlets. Rare sub-angular fine to medium flint gravel. (RIVER TERRACE DEPOSITS)  | 2.0    |
|                                               |                 | 2.30              | D                    |          |                                                                    | 2.20                     |                                                      | Firm greyish brown mottled brown and dark brown, slightly sandy gravelly CLAY. Gravel is angular to sub-angular, fine to coarse flint and chalk. Grades into clayey gravel near base of stratum. (RIVER TERRACE DEPOSITS) | 2.5    |
|                                               |                 | 2.80              | D                    |          |                                                                    | (0.80)                   |                                                      |                                                                                                                                                                                                                           |        |
|                                               |                 | 3.30              | D                    |          |                                                                    | 3.00                     |                                                      | Yellowish brown mottled light brown, clayey very sandy GRAVEL. Gravel is angular to sub-angular, fine to coarse flint. (RIVER TERRACE DEPOSITS)                                                                           | 3.0    |
|                                               |                 | 3.80              | D                    |          |                                                                    | (1.00)                   |                                                      | Yellowish brown mottled light brown, slightly silty/clayey SAND AND GRAVEL. Gravel is angular to well rounded, fine to coarse flint.                                                                                      | 3.5    |
|                                               |                 |                   |                      |          |                                                                    | 4.00                     |                                                      | Fragments of brick gravel located at depth anticipated introduced due to dynamic probing. (3.90 - 4.00m)                                                                                                                  | 4.0    |
|                                               |                 |                   |                      |          |                                                                    |                          |                                                      | End of Borehole at 4.00m                                                                                                                                                                                                  | 4.5    |
|                                               |                 |                   |                      |          |                                                                    |                          |                                                      |                                                                                                                                                                                                                           | 5.0    |
|                                               |                 |                   |                      |          |                                                                    |                          |                                                      |                                                                                                                                                                                                                           | 5.5    |
|                                               |                 |                   |                      |          |                                                                    |                          |                                                      |                                                                                                                                                                                                                           | 6.0    |
|                                               |                 |                   |                      |          |                                                                    |                          |                                                      |                                                                                                                                                                                                                           | 6.5    |
|                                               |                 |                   |                      |          |                                                                    |                          |                                                      |                                                                                                                                                                                                                           | 7.0    |
|                                               |                 |                   |                      |          |                                                                    |                          |                                                      |                                                                                                                                                                                                                           | 7.5    |
|                                               |                 |                   |                      |          |                                                                    |                          |                                                      |                                                                                                                                                                                                                           | 8.0    |
|                                               |                 |                   |                      |          |                                                                    |                          |                                                      |                                                                                                                                                                                                                           | 8.5    |
|                                               |                 |                   |                      |          |                                                                    |                          |                                                      |                                                                                                                                                                                                                           | 9.0    |
|                                               |                 |                   |                      |          |                                                                    |                          |                                                      |                                                                                                                                                                                                                           | 9.5    |
|                                               |                 |                   |                      |          |                                                                    |                          |                                                      |                                                                                                                                                                                                                           | 10.0   |
| Remarks<br>Rootlets observed to 1.00m bgl.    |                 |                   |                      |          |                                                                    |                          | Method, Plant, Stability, Dimensions<br>0.00 - 4.00m |                                                                                                                                                                                                                           | Logger |
| Checked By: ML    Status: FINAL               |                 |                   |                      |          |                                                                    |                          |                                                      |                                                                                                                                                                                                                           |        |

|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|--------------------------------------------------------|-----------------------------|------------------------------|--------------------------|--------------------|-----------------------------------------|--------------------------|-------------------|------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|-------------------------------------------|--|-----------------|--|--|------------------------------------------------|--|--|--|--|--|--|--|--|--|
| <div><div>soils</div><div>LIMITED</div></div>          |                             |                              |                          |                    | <div>Window Sampler</div>               |                          |                   |                        |                   | <div>WS103</div> <div>Sheet 1 of 1</div>                                                                                                                                                                                            |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
| <div>Hole Type</div> <div>WS</div>                     |                             |                              |                          |                    | <div>Easting</div>                      |                          |                   |                        |                   | <div>Northing</div>                                                                                                                                                                                                                 |  |  |  |  | <div>Ground Level (m)</div>               |  |                 |  |  | <div>Scale</div> <div>1:50</div>               |  |  |  |  |  |  |  |  |  |
| <div>Project Name</div> <div>Samsons Gym</div>         |                             |                              |                          |                    | <div>Project No.</div> <div>22136</div> |                          |                   |                        |                   | <div>Start Date</div> <div>2025-10-07</div>                                                                                                                                                                                         |  |  |  |  | <div>End Date</div> <div>2025-10-07</div> |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
| <div>Client</div> <div>Eastleigh Borough Council</div> |                             |                              |                          |                    |                                         |                          |                   |                        |                   | <div>Consultant</div> <div>ML</div>                                                                                                                                                                                                 |  |  |  |  |                                           |  |                 |  |  | <div>Contractor</div> <div>Soils Limited</div> |  |  |  |  |  |  |  |  |  |
| <div>Inst/<br/>Backfill</div>                          | <div>Water<br/>Levels</div> | <div>Samples and Tests</div> |                          |                    | <div>Level<br/>(m)</div>                | <div>Depth<br/>(m)</div> | <div>Strata</div> |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             | <div>Depth (m)</div>         | <div>Type/<br/>Ref</div> | <div>Results</div> |                                         |                          | <div>Legend</div> | <div>Description</div> |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             | <div>0.30</div>              | <div>ES</div>            |                    |                                         | <div>(0.25)</div>        | <div>(0.25)</div> | <div>(0.15)</div>      | <div>(0.40)</div> | <div>CONCRETE. Underlain by brick gravel and cobbles.</div>                                                                                                                                                                         |  |  |  |  |                                           |  | <div>0.5</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             | <div>0.50</div>              | <div>ES</div>            |                    |                                         |                          |                   |                        |                   | <div>Red mottled black and brown, clayey gravelly brick COBBLES. Gravel is angular to sub-angular, fine to coarse brick, clinker and chalk. Frequent rootlets. MADE GROUND.</div>                                                   |  |  |  |  |                                           |  | <div>1.0</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             | <div>0.50</div>              | <div>D</div>             |                    |                                         |                          |                   |                        |                   | <div>Stiff brown mottled greyish brown and orangish brown, slightly silty sandy CLAY. Sand is fine to medium. Highly bioturbated. Occasional rootlets. Rare sub-angular fine to medium flint gravel. (RIVER TERRACE DEPOSITS)</div> |  |  |  |  |                                           |  | <div>1.5</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             | <div>0.90</div>              | <div>ES</div>            |                    |                                         | <div>(1.10)</div>        |                   |                        |                   | <div>Stiff greyish brown, slightly sandy gravelly CLAY. Gravel is angular to sub-angular, fine to coarse flint and chalk. Occasional rootlets. (RIVER TERRACE DEPOSITS)</div>                                                       |  |  |  |  |                                           |  | <div>2.0</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             | <div>0.90</div>              | <div>D</div>             |                    |                                         |                          |                   |                        |                   | <div>Soft slightly gravelly clay band. (1.70 - 1.95m)</div>                                                                                                                                                                         |  |  |  |  |                                           |  | <div>2.5</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             | <div>1.40</div>              | <div>D</div>             |                    |                                         |                          |                   |                        |                   | <div>Orange mottled yellowish brown slightly silty sandy GRAVEL. Gravel is angular to sub-angular, fine to coarse flint and chalk. (RIVER TERRACE DEPOSITS)</div>                                                                   |  |  |  |  |                                           |  | <div>3.0</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             | <div>1.60</div>              | <div>D</div>             |                    |                                         |                          |                   |                        |                   | <div>Odour of chlorinated solvents. (2.10 - 2.40m)</div>                                                                                                                                                                            |  |  |  |  |                                           |  | <div>3.5</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             | <div>1.90</div>              | <div>D</div>             |                    |                                         |                          |                   |                        |                   | <div>Greyish brown mottled yellowish brown and brown, clayey sandy GRAVEL. Gravel is angular to sub-angular, fine to coarse flint. (RIVER TERRACE DEPOSITS)</div>                                                                   |  |  |  |  |                                           |  | <div>4.0</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             | <div>2.10</div>              | <div>D</div>             |                    |                                         |                          |                   |                        |                   | <div>Yellowish brown mottled brown and orange, clayey sandy GRAVEL. Gravel is angular to rounded, fine to coarse flint and chalk. Frequent sandy gravelly clay bands and lenses. (RIVER TERRACE DEPOSITS)</div>                     |  |  |  |  |                                           |  | <div>4.5</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             | <div>2.20</div>              | <div>ES</div>            |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  | <div>5.0</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             | <div>2.40</div>              | <div>D</div>             |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  | <div>5.5</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             | <div>2.80</div>              | <div>D</div>             |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  | <div>6.0</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             | <div>3.30</div>              | <div>D</div>             |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  | <div>6.5</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             | <div>3.80</div>              | <div>D</div>             |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  | <div>7.0</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  | <div>7.5</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  | <div>8.0</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  | <div>8.5</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  | <div>9.0</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  | <div>9.5</div>  |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  | <div>10.0</div> |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
|                                                        |                             |                              |                          |                    |                                         |                          |                   |                        |                   |                                                                                                                                                                                                                                     |  |  |  |  |                                           |  |                 |  |  |                                                |  |  |  |  |  |  |  |  |  |
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| <div><div></div><div><div>Window Sampler</div><div>WS104</div><div>Sheet 1 of 1</div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |                      |              |         | <div><div>Hole Type</div><div>WS</div></div> <div><div>Easting</div><div></div></div> <div><div>Northing</div><div></div></div> <div><div>Ground Level (m)</div><div></div></div> <div><div>Scale</div><div>1:50</div></div> |                                  |                                                                                   |                                                                                                                                                                                                                              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| <div><div>Project Name</div><div>Samsons Gym</div></div> <div><div>Project No.</div><div>22136</div></div> <div><div>Start Date</div><div>2025-10-07</div></div> <div><div>End Date</div><div>2025-10-07</div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| <div><div>Client</div><div>Eastleigh Borough Council</div></div> <div><div>Consultant</div><div>ML</div></div> <div><div>Contractor</div><div>Soils Limited</div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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| <table><tr><td rowspan="2">Inst/<br/>Backfill</td><td rowspan="2">Water<br/>Levels</td><td colspan="3">Samples and Tests</td><td rowspan="2">Level<br/>(m)</td><td rowspan="2">Depth<br/>(m)</td><td colspan="2">Strata</td><td rowspan="2"></td></tr><tr><td>Depth (m)</td><td>Type/<br/>Ref</td><td>Results</td><td>Legend</td><td>Description</td></tr><tr><td></td><td></td><td>0.40</td><td>ES</td><td></td><td></td><td>(0.20)<br/>0.20<br/>(0.10)<br/>0.30</td><td></td><td>CONCRETE</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>BRICK. MADE GROUND.</td><td></td></tr><tr><td></td><td></td><td>0.80<br/>0.80</td><td>ES<br/>D</td><td></td><td></td><td>(0.60)<br/>0.90<br/>(0.30)</td><td></td><td>Stiff brown mottled greyish brown and orangish brown, slightly silty sandy CLAY. Sand is fine to medium. Highly bioturbated. Occasional rootlets. Rare sub-angular fine to medium flint gravel. Rare rootlets. (RIVER TERRACE DEPOSITS)</td><td>0.5<br/>1.0</td></tr><tr><td></td><td></td><td>1.10<br/>1.10<br/>1.30</td><td>ES<br/>D<br/>D</td><td></td><td></td><td>1.20<br/>(0.60)</td><td></td><td>Stiff brown, slightly sandy slightly gravelly CLAY. Gravel is angular to sub-angular fine to coarse flint. Rare rootlets. (RIVER TERRACE DEPOSITS)</td><td>1.5</td></tr><tr><td></td><td></td><td>1.90</td><td>D</td><td></td><td></td><td>1.80<br/>(0.70)</td><td></td><td>Firm greyish brown, slightly sandy gravelly CLAY. Gravel is angular to sub-angular, fine to coarse flint and chalk. (RIVER TERRACE DEPOSITS)</td><td>2.0</td></tr><tr><td></td><td></td><td>2.20</td><td>ES</td><td></td><td></td><td>2.50</td><td></td><td>Greyish brown, sandy clayey GRAVEL. Gravel is angular to sub-angular, fine to coarse flint and chalk. (RIVER TERRACE DEPOSITS)</td><td>2.5</td></tr><tr><td></td><td></td><td>2.70</td><td>D</td><td></td><td></td><td></td><td></td><td>Odour of chlorinated solvents. (1.90 - 3.00m)</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Brown mottled yellowish brown, slightly clayey very sandy GRAVEL. Gravel is angular to sub-angular, fine to coarse flint, and chalk. (RIVER TERRACE DEPOSITS)</td><td>3.0</td></tr><tr><td></td><td></td><td>3.60</td><td>D</td><td></td><td></td><td>(1.50)</td><td></td><td>Very low sample in liner. (3.00 - 3.50m)</td><td>3.5</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td>4.00</td><td></td><td>End of Borehole at 4.00m</td><td>4.0</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>4.5</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>5.0</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>5.5</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>6.0</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>6.5</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>7.0</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>7.5</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>8.0</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>8.5</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>9.0</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>9.5</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>10.0</td></tr></table> |                 |                      |              |         |                                                                                                                                                                                                                              |                                  |                                                                                   |                                                                                                                                                                                                                                         |            | Inst/<br>Backfill | Water<br>Levels | Samples and Tests |  |  | Level<br>(m) | Depth<br>(m) | Strata |  |  | Depth (m) | Type/<br>Ref | Results | Legend | Description |  |  | 0.40 | ES |  |  | (0.20)<br>0.20<br>(0.10)<br>0.30 |  | CONCRETE |  |  |  |  |  |  |  |  |  | BRICK. MADE GROUND. |  |  |  | 0.80<br>0.80 | ES<br>D |  |  | (0.60)<br>0.90<br>(0.30) |  | Stiff brown mottled greyish brown and orangish brown, slightly silty sandy CLAY. Sand is fine to medium. Highly bioturbated. Occasional rootlets. Rare sub-angular fine to medium flint gravel. Rare rootlets. (RIVER TERRACE DEPOSITS) | 0.5<br>1.0 |  |  | 1.10<br>1.10<br>1.30 | ES<br>D<br>D |  |  | 1.20<br>(0.60) |  | Stiff brown, slightly sandy slightly gravelly CLAY. Gravel is angular to sub-angular fine to coarse flint. Rare rootlets. (RIVER TERRACE DEPOSITS) | 1.5 |  |  | 1.90 | D |  |  | 1.80<br>(0.70) |  | Firm greyish brown, slightly sandy gravelly CLAY. Gravel is angular to sub-angular, fine to coarse flint and chalk. (RIVER TERRACE DEPOSITS) | 2.0 |  |  | 2.20 | ES |  |  | 2.50 |  | Greyish brown, sandy clayey GRAVEL. Gravel is angular to sub-angular, fine to coarse flint and chalk. (RIVER TERRACE DEPOSITS) | 2.5 |  |  | 2.70 | D |  |  |  |  | Odour of chlorinated solvents. (1.90 - 3.00m) |  |  |  |  |  |  |  |  |  | Brown mottled yellowish brown, slightly clayey very sandy GRAVEL. Gravel is angular to sub-angular, fine to coarse flint, and chalk. (RIVER TERRACE DEPOSITS) | 3.0 |  |  | 3.60 | D |  |  | (1.50) |  | Very low sample in liner. (3.00 - 3.50m) | 3.5 |  |  |  |  |  |  | 4.00 |  | End of Borehole at 4.00m | 4.0 |  |  |  |  |  |  |  |  |  | 4.5 |  |  |  |  |  |  |  |  |  | 5.0 |  |  |  |  |  |  |  |  |  | 5.5 |  |  |  |  |  |  |  |  |  | 6.0 |  |  |  |  |  |  |  |  |  | 6.5 |  |  |  |  |  |  |  |  |  | 7.0 |  |  |  |  |  |  |  |  |  | 7.5 |  |  |  |  |  |  |  |  |  | 8.0 |  |  |  |  |  |  |  |  |  | 8.5 |  |  |  |  |  |  |  |  |  | 9.0 |  |  |  |  |  |  |  |  |  | 9.5 |  |  |  |  |  |  |  |  |  | 10.0 |
| Inst/<br>Backfill                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 | 0.40                 | ES           |         |                                                                                                                                                                                                                              | (0.20)<br>0.20<br>(0.10)<br>0.30 |  | CONCRETE                                                                                                                                                                                                                                |            |                   |                 |                   |  |  |              |              |        |  |  |           |              |         |        |             |  |  |      |    |  |  |                                  |                                                                                   |          |  |  |  |  |  |  |  |  |                                                                                   |                     |  |  |  |              |         |  |  |                          |                                                                                   |                                                                                                                                                                                                                                         |            |  |  |                      |              |  |  |                |                                                          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MADE GROUND.                                                                                                                                                                                                                     |            |                   |                 |                   |  |  |              |              |        |  |  |           |              |         |        |             |  |  |      |    |  |  |                                  |                                                                                   |          |  |  |  |  |  |  |  |  |                                                                                   |                     |  |  |  |              |         |  |  |                          |                                                                                   |                                                                                                                                                                                                                                         |            |  |  |                      |              |  |  |                |                                                                                   |                                                                                                                                                    |     |  |  |      |   |  |  |                |                                                                                   |                                                                                                                                              |     |  |  |      |    |  |  |      |                                                                                   |                                                                                                                                |     |  |  |      |   |  |  |  |                                                                                   |                                               |  |  |  |  |  |  |  |  |                                                                                   |                                                                                                                                                               |     |  |  |      |   |  |  |        |                                                                                   |                                          |     |  |  |  |  |  |  |      |  |                          |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 | 0.80<br>0.80         | ES<br>D      |         |                                                                                                                                                                                                                              | (0.60)<br>0.90<br>(0.30)         |  | Stiff brown mottled greyish brown and orangish brown, slightly silty sandy CLAY. Sand is fine to medium. Highly bioturbated. Occasional rootlets. Rare sub-angular fine to medium flint gravel. Rare rootlets. (RIVER TERRACE DEPOSITS) | 0.5<br>1.0 |                   |                 |                   |  |  |              |              |        |  |  |           |              |         |        |             |  |  |      |    |  |  |                                  |                                                                                   |          |  |  |  |  |  |  |  |  |                                                                                   |                     |  |  |  |              |         |  |  |                          |                                                                                   |                                                                                                                                                                                                                                         |            |  |  |                      |              |  |  |                |                                                                                   |                                                                                                                                                    |     |  |  |      |   |  |  |                |                                                                                   |                                                                                                                                              |     |  |  |      |    |  |  |      |                                                                                   |                                                                                                                                |     |  |  |      |   |  |  |  |                                                                                   |                                               |  |  |  |  |  |  |  |  |                                                                                   |                                                                                                                                                               |     |  |  |      |   |  |  |        |                                                                                   |                                          |     |  |  |  |  |  |  |      |  |                          |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |      |
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Gravel is angular to sub-angular fine to coarse flint. Rare rootlets. (RIVER TERRACE DEPOSITS)                                                                                      | 1.5        |                   |                 |                   |  |  |              |              |        |  |  |           |              |         |        |             |  |  |      |    |  |  |                                  |                                                                                   |          |  |  |  |  |  |  |  |  |                                                                                   |                     |  |  |  |              |         |  |  |                          |                                                                                   |                                                                                                                                                                                                                                         |            |  |  |                      |              |  |  |                |                                                                                   |                                                                                                                                                    |     |  |  |      |   |  |  |                |                                                                                   |                                                                                                                                              |     |  |  |      |    |  |  |      |                                                                                   |                                                                                                                                |     |  |  |      |   |  |  |  |                                                                                   |                                               |  |  |  |  |  |  |  |  |                                                                                   |                                                                                                                                                               |     |  |  |      |   |  |  |        |                                                                                   |                                          |     |  |  |  |  |  |  |      |  |                          |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |      |
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Gravel is angular to sub-angular, fine to coarse flint and chalk. (RIVER TERRACE DEPOSITS)                                                                                            | 2.0        |                   |                 |                   |  |  |              |              |        |  |  |           |              |         |        |             |  |  |      |    |  |  |                                  |                                                                                   |          |  |  |  |  |  |  |  |  |                                                                                   |                     |  |  |  |              |         |  |  |                          |                                                                                   |                                                                                                                                                                                                                                         |            |  |  |                      |              |  |  |                |                                                                                   |                                                                                                                                                    |     |  |  |      |   |  |  |                |                                                                                   |                                                                                                                                              |     |  |  |      |    |  |  |      |                                                                                   |                                                                                                                                |     |  |  |      |   |  |  |  |                                                                                   |                                               |  |  |  |  |  |  |  |  |                                                                                   |                                                                                                                                                               |     |  |  |      |   |  |  |        |                                                                                   |                                          |     |  |  |  |  |  |  |      |  |                          |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |      |
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Gravel is angular to sub-angular, fine to coarse flint and chalk. (RIVER TERRACE DEPOSITS)                                                                                                          | 2.5        |                   |                 |                   |  |  |              |              |        |  |  |           |              |         |        |             |  |  |      |    |  |  |                                  |                                                                                   |          |  |  |  |  |  |  |  |  |                                                                                   |                     |  |  |  |              |         |  |  |                          |                                                                                   |                                                                                                                                                                                                                                         |            |  |  |                      |              |  |  |                |                                                                                   |                                                                                                                                                    |     |  |  |      |   |  |  |                |                                                                                   |                                                                                                                                              |     |  |  |      |    |  |  |      |                                                                                   |                                                                                                                                |     |  |  |      |   |  |  |  |                                                                                   |                                               |  |  |  |  |  |  |  |  |                                                                                   |                                                                                                                                                               |     |  |  |      |   |  |  |        |                                                                                   |                                          |     |  |  |  |  |  |  |      |  |                          |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |      |
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(1.90 - 3.00m)                                                                                                                                                                                           |            |                   |                 |                   |  |  |              |              |        |  |  |           |              |         |        |             |  |  |      |    |  |  |                                  |                                                                                   |          |  |  |  |  |  |  |  |  |                                                                                   |                     |  |  |  |              |         |  |  |                          |                                                                                   |                                                                                                                                                                                                                                         |            |  |  |                      |              |  |  |                |                                                                                   |                                                                                                                                                    |     |  |  |      |   |  |  |                |                                                                                   |                                                                                                                                              |     |  |  |      |    |  |  |      |                                                                                   |                                                                                                                                |     |  |  |      |   |  |  |  |                                                                                   |                                               |  |  |  |  |  |  |  |  |                                                                                   |                                                                                                                                                               |     |  |  |      |   |  |  |        |                                                                                   |                                          |     |  |  |  |  |  |  |      |  |                          |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                      |              |         |                                                                                                                                                                                                                              |                                  |  | Brown mottled yellowish brown, slightly clayey very sandy GRAVEL. Gravel is angular to sub-angular, fine to coarse flint, and chalk. (RIVER TERRACE DEPOSITS)                                                                           | 3.0        |                   |                 |                   |  |  |              |              |        |  |  |           |              |         |        |             |  |  |      |    |  |  |                                  |                                                                                   |          |  |  |  |  |  |  |  |  |                                                                                   |                     |  |  |  |              |         |  |  |                          |                                                                                   |                                                                                                                                                                                                                                         |            |  |  |                      |              |  |  |                |                                                                                   |                                                                                                                                                    |     |  |  |      |   |  |  |                |                                                                                   |                                                                                                                                              |     |  |  |      |    |  |  |      |                                                                                   |                                                                                                                                |     |  |  |      |   |  |  |  |                                                                                   |                                               |  |  |  |  |  |  |  |  |                                                                                   |                                                                                                                                                               |     |  |  |      |   |  |  |        |                                                                                   |                                          |     |  |  |  |  |  |  |      |  |                          |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 | 3.60                 | D            |         |                                                                                                                                                                                                                              | (1.50)                           |  | Very low sample in liner. (3.00 - 3.50m)                                                                                                                                                                                                | 3.5        |                   |                 |                   |  |  |              |              |        |  |  |           |              |         |        |             |  |  |      |    |  |  |                                  |                                                                                   |          |  |  |  |  |  |  |  |  |                                                                                   |                     |  |  |  |              |         |  |  |                          |                                                                                   |                                                                                                                                                                                                                                         |            |  |  |                      |              |  |  |                |                                                                                   |                                                                                                                                                    |     |  |  |      |   |  |  |                |                                                                                   |                                                                                                                                              |     |  |  |      |    |  |  |      |                                                                                   |                                                                                                                                |     |  |  |      |   |  |  |  |                                                                                   |                                               |  |  |  |  |  |  |  |  |                                                                                   |                                                                                                                                                               |     |  |  |      |   |  |  |        |                                                                                   |                                          |     |  |  |  |  |  |  |      |  |                          |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |      |
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |                      |              |         |                                                                                                                                                                                                                              | 4.00                             |                                                                                   | End of Borehole at 4.00m                                                                                                                                                                                                                | 4.0        |                   |                 |                   |  |  |              |              |        |  |  |           |              |         |        |             |  |  |      |    |  |  |                                  |                                                                                   |          |  |  |  |  |  |  |  |  |                                                                                   |                     |  |  |  |              |         |  |  |                          |                                                                                   |                                                                                                                                                                                                                                         |            |  |  |                      |              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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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| Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |                      |              |         |                                                                                                                                                                                                                              |                                  |                                                                                   | Method, Plant, Stability, Dimensions<br>0.00 - 4.00m                                                                                                                                                                                    |            | Logger            |                 |                   |  |  |              |              |        |  |  |           |              |         |        |             |  |  |      |    |  |  |                                  |                                                                                   |          |  |  |  |  |  |  |  |  |                                                                                   |                     |  |  |  |              |         |  |  |                          |                                                                                   |                                                                                                                                                                                                                                         |            |  |  |                      |              |  |  |                |                                                                                   |                                                                                                                                                    |     |  |  |      |   |  |  |                |                                                                                   |                                                                                                                                              |     |  |  |      |    |  |  |      |                                                                                   |                                                                                                                                |     |  |  |      |   |  |  |  |                                                                                   |                                               |  |  |  |  |  |  |  |  |                                                                                   |                                                                                                                                                               |     |  |  |      |   |  |  |        |                                                                                   |                                          |     |  |  |  |  |  |  |      |  |                          |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |      |
| Checked By: ML    Status: FINAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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|                                                                                              |                             |                       |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                |      |
|----------------------------------------------------------------------------------------------|-----------------------------|-----------------------|----------|-----------------------------------------------------------------------------------------------------------|------------------------------------------|----|----|---------------------------------------|----|----|----|----------------|------|
| <div></div> | <div>Dynamic Probe</div>    |                       |          |                                                                                                           | <div>DP101</div> <div>Sheet 1 of 1</div> |    |    |                                       |    |    |    |                |      |
|                                                                                              | Probe Type<br>DPSH          | Easting               | Northing | Ground Level (m)                                                                                          | Scale<br>1:50                            |    |    |                                       |    |    |    |                |      |
|                                                                                              | Project Name<br>Samsons Gym | Project No.<br>22136  |          | Start Date<br>2025-10-07                                                                                  | End Date<br>2025-10-07                   |    |    |                                       |    |    |    |                |      |
| Client<br>Eastleigh Borough Council                                                          |                             | Consultant<br>ML      |          | Contractor<br>Soils Limited                                                                               |                                          |    |    |                                       |    |    |    |                |      |
|                                                                                              | Readings<br>(Blows/100mm)   | Diagram (N100 Values) |          |                                                                                                           |                                          |    |    |                                       |    |    |    | Torque<br>(Nm) |      |
|                                                                                              |                             | 5                     | 10       | 15                                                                                                        | 20                                       | 25 | 30 | 35                                    | 40 | 45 | 50 |                |      |
| 0.5                                                                                          | 3 1 0 1                     | 2                     |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 0.5  |
| 1.0                                                                                          | 0 1 1 5                     | 0                     |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 1.0  |
| 1.5                                                                                          | 7 6 5 5                     | 6                     |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 1.5  |
| 2.0                                                                                          | 7 6 8 9                     | 6                     |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 2.0  |
| 2.5                                                                                          | 11 12 14 11                 | 12                    |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 2.5  |
| 3.0                                                                                          | 9 6 6 7                     | 8                     |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 3.0  |
| 3.5                                                                                          | 13 18 15 16                 | 10                    |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 3.5  |
| 4.0                                                                                          | 17 17 14 13                 | 17                    |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 4.0  |
| 4.5                                                                                          | 11 13 10 5                  | 14                    |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 4.5  |
| 5.0                                                                                          | 3 2 4 2                     | 2                     |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 5.0  |
| 5.5                                                                                          | 4 3 3 4                     | 3                     |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 5.5  |
| 6.0                                                                                          | 3 3 4 3                     | 3                     |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 6.0  |
| 6.5                                                                                          |                             |                       |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 6.5  |
| 7.0                                                                                          |                             |                       |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 7.0  |
| 7.5                                                                                          |                             |                       |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 7.5  |
| 8.0                                                                                          |                             |                       |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 8.0  |
| 8.5                                                                                          |                             |                       |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 8.5  |
| 9.0                                                                                          |                             |                       |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 9.0  |
| 9.5                                                                                          |                             |                       |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 9.5  |
| 10.0                                                                                         |                             |                       |          |                                                                                                           |                                          |    |    |                                       |    |    |    |                | 10.0 |
| Remarks<br>SPT Hammer Energy Ratio = 90.85%                                                  |                             |                       |          | Method, Plant                                                                                             |                                          |    |    | Logger                                |    |    |    |                |      |
| Checked By: ML    Status: FINAL                                                              |                             |                       |          | Hammer Weight (kg)<br>Hammer Drop (mm)<br>Cone Diameter (mm)<br>Cone Angle<br>Rod Diameter (mm)<br>Damper |                                          |    |    | 63.5<br>750<br>20<br>90<br>35<br>None |    |    |    |                |      |

|                                                                                   |                           |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                |      |
|-----------------------------------------------------------------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------|----------------|----|----|----|----|----|----|----------------|------|
|  | <h1>Dynamic Probe</h1>    |                                                                                                                                  |                             |                        | <h2>DP102</h2> |    |    |    |    |    |    |                |      |
|                                                                                   |                           |                                                                                                                                  |                             |                        | Sheet 1 of 1   |    |    |    |    |    |    |                |      |
|                                                                                   | Probe Type<br>DPSH        | Easting                                                                                                                          | Northing                    | Ground Level (m)       | Scale<br>1:50  |    |    |    |    |    |    |                |      |
| Project Name<br>Samsons Gym                                                       |                           | Project No.<br>22136                                                                                                             | Start Date<br>2025-10-07    | End Date<br>2025-10-07 |                |    |    |    |    |    |    |                |      |
| Client<br>Eastleigh Borough Council                                               |                           | Consultant<br>ML                                                                                                                 | Contractor<br>Soils Limited |                        |                |    |    |    |    |    |    |                |      |
|                                                                                   | Readings<br>(Blows/100mm) | Diagram (N100 Values)                                                                                                            |                             |                        |                |    |    |    |    |    |    | Torque<br>(Nm) |      |
|                                                                                   |                           | 5                                                                                                                                | 10                          | 15                     | 20             | 25 | 30 | 35 | 40 | 45 | 50 |                |      |
| 0.5                                                                               | 2                         |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 0.5  |
| 1.0                                                                               | 0 1 1                     |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 1.0  |
| 1.5                                                                               | 3 4 7 6                   |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 1.5  |
| 2.0                                                                               | 5 9 10 10 11 10 10 9      |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 2.0  |
| 2.5                                                                               | 11 10 10 9                |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 2.5  |
| 3.0                                                                               | 7 7 6 9 11                |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 3.0  |
| 3.5                                                                               | 14 16 18 16 16            |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 3.5  |
| 4.0                                                                               | 16 13 10 13 11            |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 4.0  |
| 4.5                                                                               | 9 8 10 13 9               |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 4.5  |
| 5.0                                                                               | 8 8 7 8 7                 |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 5.0  |
| 5.5                                                                               | 7 6 7 7                   |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 5.5  |
| 6.0                                                                               | 7                         |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 6.0  |
| 6.5                                                                               |                           |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 6.5  |
| 7.0                                                                               |                           |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 7.0  |
| 7.5                                                                               |                           |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 7.5  |
| 8.0                                                                               |                           |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 8.0  |
| 8.5                                                                               |                           |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 8.5  |
| 9.0                                                                               |                           |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 9.0  |
| 9.5                                                                               |                           |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 9.5  |
| 10.0                                                                              |                           |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                | 10.0 |
| Remarks<br>SPT Hammer Energy Ratio = 90.85%                                       |                           | Method, Plant                                                                                                                    |                             |                        |                |    |    |    |    |    |    | Logger         |      |
|                                                                                   |                           | Hammer Weight (kg) 63.5<br>Hammer Drop (mm) 750<br>Cone Diameter (mm) 20<br>Cone Angle 90<br>Rod Diameter (mm) 35<br>Damper None |                             |                        |                |    |    |    |    |    |    |                |      |
| Checked By: ML    Status: FINAL                                                   |                           |                                                                                                                                  |                             |                        |                |    |    |    |    |    |    |                |      |



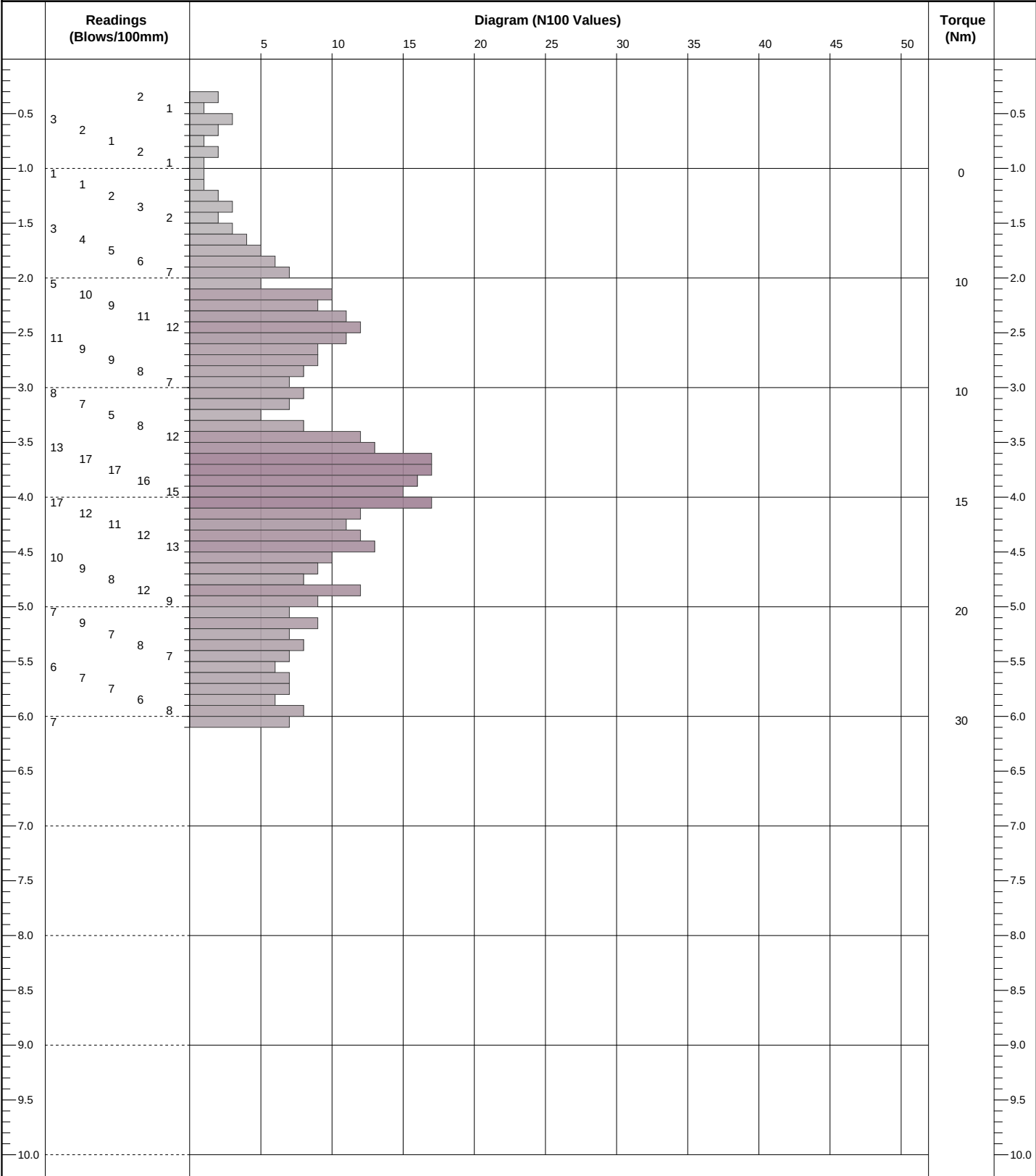
# Dynamic Probe

DP103

Sheet 1 of 1

|                             |                      |          |                          |                        |
|-----------------------------|----------------------|----------|--------------------------|------------------------|
| Probe Type<br>DPSH          | Easting              | Northing | Ground Level (m)         | Scale<br>1:50          |
| Project Name<br>Samsons Gym | Project No.<br>22136 |          | Start Date<br>2025-10-07 | End Date<br>2025-10-07 |

|                                     |                  |                             |
|-------------------------------------|------------------|-----------------------------|
| Client<br>Eastleigh Borough Council | Consultant<br>ML | Contractor<br>Soils Limited |
|-------------------------------------|------------------|-----------------------------|



|                                             |                                                                                                           |                                       |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------|
| Remarks<br>SPT Hammer Energy Ratio = 90.85% | Method, Plant                                                                                             | Logger                                |
| Checked By: ML    Status: FINAL             | Hammer Weight (kg)<br>Hammer Drop (mm)<br>Cone Diameter (mm)<br>Cone Angle<br>Rod Diameter (mm)<br>Damper | 63.5<br>750<br>20<br>90<br>35<br>None |

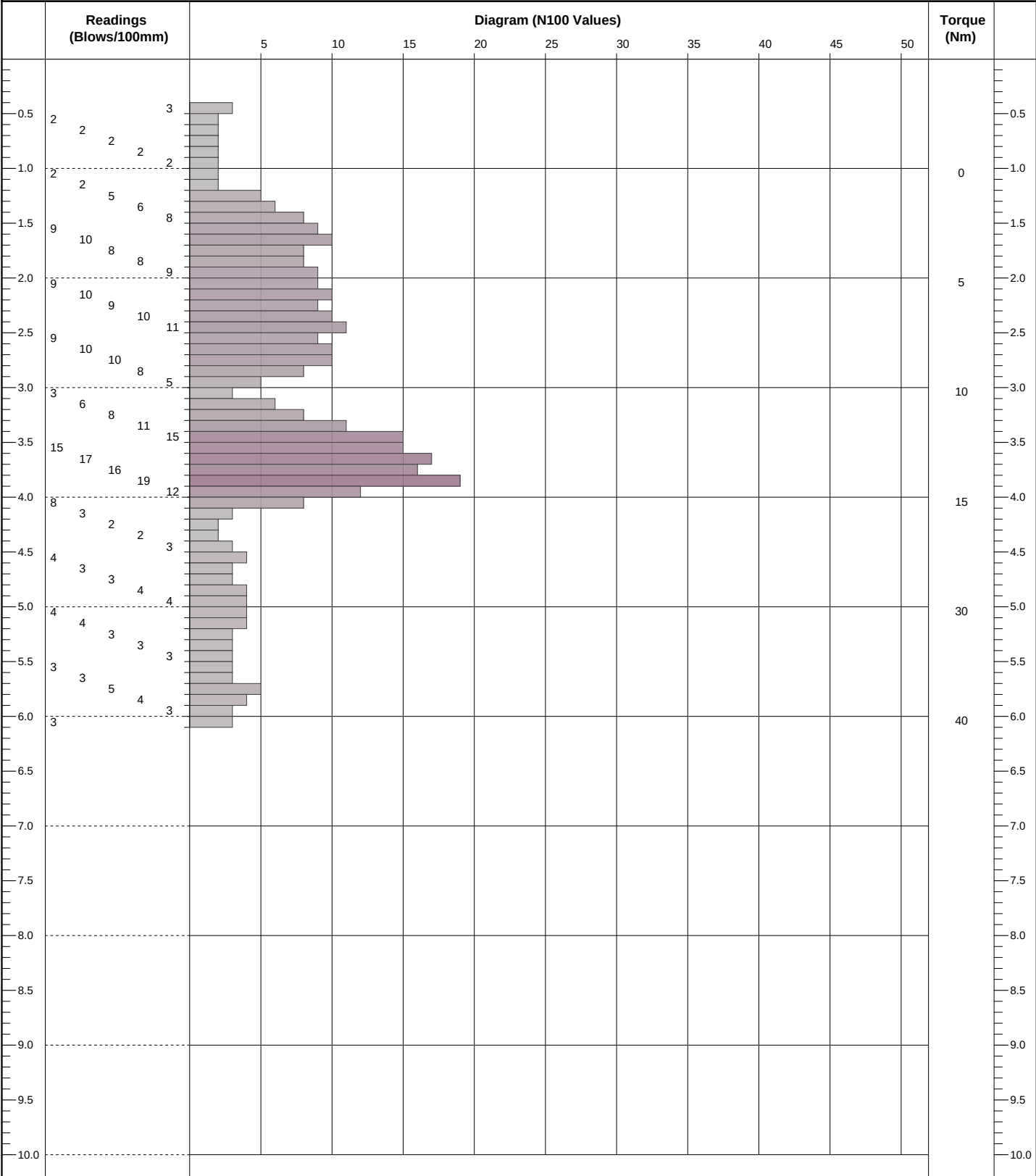


# Dynamic Probe

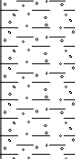
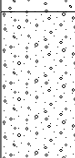
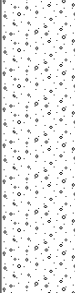
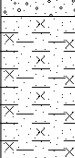
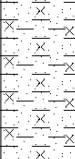
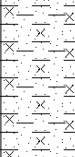
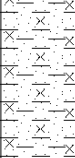
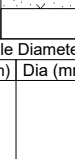
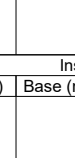
DP104  
Sheet 1 of 1

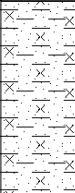
|                             |                      |          |                          |                        |
|-----------------------------|----------------------|----------|--------------------------|------------------------|
| Probe Type<br>DPSH          | Easting              | Northing | Ground Level (m)         | Scale<br>1:50          |
| Project Name<br>Samsons Gym | Project No.<br>22136 |          | Start Date<br>2025-10-07 | End Date<br>2025-10-07 |

|                                     |                  |                             |
|-------------------------------------|------------------|-----------------------------|
| Client<br>Eastleigh Borough Council | Consultant<br>ML | Contractor<br>Soils Limited |
|-------------------------------------|------------------|-----------------------------|



|                                             |                                                                                                           |                                       |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------|
| Remarks<br>SPT Hammer Energy Ratio = 90.85% | Method, Plant                                                                                             | Logger                                |
| Checked By: ML    Status: FINAL             | Hammer Weight (kg)<br>Hammer Drop (mm)<br>Cone Diameter (mm)<br>Cone Angle<br>Rod Diameter (mm)<br>Damper | 63.5<br>750<br>20<br>90<br>35<br>None |

|                                                                                 |                              |                     |                                 |                                                                                     |                                                                                    |                                                                                                                       |                                    |          |                           |            |                  |                                                                                                        |                       |         |  |  |
|---------------------------------------------------------------------------------|------------------------------|---------------------|---------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------|----------|---------------------------|------------|------------------|--------------------------------------------------------------------------------------------------------|-----------------------|---------|--|--|
|  | Contract Name:<br>Samson Gym |                     |                                 |                                                                                     | Client:<br>Eastleigh Borough Council                                               |                                                                                                                       |                                    |          | Hole ID:<br>BH1           |            |                  |                                                                                                        |                       |         |  |  |
|                                                                                 | Contract Number:<br>19192    |                     | Start and End Date:<br>24/03/21 |                                                                                     | Logged By:<br>DJ                                                                   |                                                                                                                       | Checked By:<br>JD                  |          | Status:<br>FINAL          |            | Hole Type:<br>BH |                                                                                                        |                       |         |  |  |
|                                                                                 | Easting:                     |                     | Northing:                       |                                                                                     | Ground Level:                                                                      |                                                                                                                       | Plant Used:<br>Dando 4000          |          | Print Date:<br>14/05/2021 |            | Scale:<br>1:50   |                                                                                                        |                       |         |  |  |
| Weather:                                                                        |                              |                     | Termination:                    |                                                                                     |                                                                                    |                                                                                                                       | SPT Hammer: N/R, Energy Ratio: N/R |          |                           |            | Sheet 1 of 2     |                                                                                                        |                       |         |  |  |
| Samples & In Situ Testing                                                       |                              |                     |                                 | Strata Details                                                                      |                                                                                    |                                                                                                                       |                                    |          |                           |            |                  | Groundwater                                                                                            |                       |         |  |  |
| Depth                                                                           | Type                         | Results             | Level (mAOD)                    | Depth (m) (Thickness)                                                               | Legend                                                                             | Strata Description                                                                                                    |                                    |          |                           |            |                  | Water Strike                                                                                           | Backfill/Installation |         |  |  |
| 0.25                                                                            | D                            |                     |                                 | 0.05                                                                                |   | Tarmac. MADE GROUND                                                                                                   | 1                                  |          |                           |            |                  |                                                                                                        |                       |         |  |  |
| 0.50 - 0.70                                                                     | B                            |                     |                                 | 0.30                                                                                |   | Soft, orangish brown silty sandy CLAY. Sand is fine. Rare angular fine gravels of chalk. MADE GROUND                  |                                    |          |                           |            |                  |                                                                                                        |                       |         |  |  |
|                                                                                 |                              |                     |                                 | (0.30)                                                                              |   | Firm yellow brown clay and chalk fill. MADE GROUND.                                                                   |                                    |          |                           |            |                  |                                                                                                        |                       |         |  |  |
| 1.00                                                                            | D                            |                     |                                 | 0.60                                                                                |   | Firm orange brown silty CLAY. RIVER TERRACE DEPOSITS                                                                  | 2                                  |          |                           |            |                  |                                                                                                        |                       |         |  |  |
| 1.20 - 1.60                                                                     | U                            |                     |                                 | (0.85)                                                                              |   |                                                                                                                       |                                    |          |                           |            |                  |                                                                                                        |                       |         |  |  |
| 1.60 - 2.10                                                                     | D                            |                     |                                 | 1.45                                                                                |   | Firm brown slightly sandy gravelly CLAY. Sand is fine, Gravel is angular fine to coarse flint. RIVER TERRACE DEPOSITS |                                    |          |                           |            |                  |                                                                                                        |                       |         |  |  |
| 2.10                                                                            | SPT B                        | N=23 (6,9/6,5,5,7)  |                                 | (1.45)                                                                              |   | 3                                                                                                                     |                                    |          |                           |            |                  |                                                                                                        |                       |         |  |  |
| 3.00                                                                            | SPT B                        | N=34 (7,9/7,8,9,10) |                                 | 2.90                                                                                |   |                                                                                                                       |                                    |          |                           |            |                  | Orangish brown sandy GRAVEL. Gravel is angular to rounded fine to coarse flint. RIVER TERRACE DEPOSITS |                       |         |  |  |
| 4.00                                                                            | SPT B                        | N=33 (7,9/8,7,8,10) |                                 | (3.00)                                                                              |  |                                                                                                                       |                                    |          |                           |            |                  | 4                                                                                                      |                       |         |  |  |
| 5.00                                                                            | SPT B                        | N=36 (5,6/8,9,10,9) | 5.90                            |  | 5                                                                                  |                                                                                                                       |                                    |          |                           |            |                  |                                                                                                        |                       |         |  |  |
| 5.90 - 6.40                                                                     | B                            |                     | (5.40)                          |  |                                                                                    |                                                                                                                       |                                    |          |                           |            | 6                |                                                                                                        |                       |         |  |  |
| 6.50                                                                            | SPT D                        | N=22 (2,2/4,5,5,8)  |                                 |  |                                                                                    |                                                                                                                       |                                    |          |                           |            |                  | 7                                                                                                      |                       |         |  |  |
| 7.50                                                                            | D                            |                     |                                 |  | 8                                                                                  |                                                                                                                       |                                    |          |                           |            |                  |                                                                                                        |                       |         |  |  |
| 8.00                                                                            | SPT D                        | N=23 (2,3/4,6,6,7)  |                                 |  |                                                                                    |                                                                                                                       |                                    |          |                           |            | 9                |                                                                                                        |                       |         |  |  |
| 9.00                                                                            | D                            |                     |                                 |  |                                                                                    |                                                                                                                       |                                    |          |                           |            |                  | 10                                                                                                     |                       |         |  |  |
| 9.50 - 9.90                                                                     | U                            |                     |                                 |                                                                                     |                                                                                    |                                                                                                                       |                                    |          |                           |            |                  |                                                                                                        |                       |         |  |  |
| 9.90                                                                            | D                            |                     |                                 |                                                                                     |                                                                                    |                                                                                                                       |                                    |          |                           |            |                  |                                                                                                        |                       |         |  |  |
| Start & End of Shift Observations                                               |                              |                     |                                 |                                                                                     | Borehole Diameter                                                                  |                                                                                                                       | Casing Diameter                    |          | Remarks:                  |            |                  |                                                                                                        |                       |         |  |  |
| Date                                                                            | Time                         | Depth (m)           | Casing (m)                      | Water (m)                                                                           | Depth (m)                                                                          | Dia (mm)                                                                                                              | Depth (m)                          | Dia (mm) |                           |            |                  |                                                                                                        |                       |         |  |  |
| 24-03-2021                                                                      | 15:00                        | 15.00               | 11.50                           | 14.80                                                                               |                                                                                    |                                                                                                                       |                                    |          |                           |            |                  |                                                                                                        |                       |         |  |  |
|                                                                                 |                              |                     |                                 |                                                                                     |                                                                                    |                                                                                                                       |                                    |          |                           |            |                  |                                                                                                        |                       |         |  |  |
| Chiselling                                                                      |                              |                     |                                 |                                                                                     | Installation                                                                       |                                                                                                                       |                                    |          | Water Strikes             |            |                  |                                                                                                        |                       |         |  |  |
| From (m)                                                                        | To (m)                       | Duration            | Remarks                         |                                                                                     | Top (m)                                                                            | Base (m)                                                                                                              | Type                               | Dia (mm) | Strike (m)                | Casing (m) | Sealed (m)       | Time (mins)                                                                                            | Rose to (m)           | Remarks |  |  |
|                                                                                 |                              |                     |                                 |                                                                                     |                                                                                    |                                                                                                                       |                                    |          |                           |            |                  | 0                                                                                                      | 0.00                  |         |  |  |
| Hand vane (HV), Hand penetrometer (HP) reported in kPa. PID reported in ppm.    |                              |                     |                                 |                                                                                     |                                                                                    |                                                                                                                       |                                    |          |                           |            |                  |                                                                                                        |                       |         |  |  |

|                                                                                 |                           |                     |                              |                       |                                                                                   |                                                                                                                                               |                                    |          |                        |            |               |                                                                                                        |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
|---------------------------------------------------------------------------------|---------------------------|---------------------|------------------------------|-----------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------|------------------------|------------|---------------|--------------------------------------------------------------------------------------------------------|------------------------|---------|--|--|----|----|--|--|--|--|----|----|--|--|--|--|--|--|
|  | Contract Name: Samson Gym |                     |                              |                       | Client: Eastleigh Borough Council                                                 |                                                                                                                                               |                                    |          | Hole ID: BH1           |            |               |                                                                                                        |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
|                                                                                 | Contract Number: 19192    |                     | Start and End Date: 24/03/21 |                       | Logged By: DJ                                                                     |                                                                                                                                               | Checked By: JD                     |          | Status: FINAL          |            | Hole Type: BH |                                                                                                        |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
|                                                                                 | Easting:                  |                     | Northing:                    |                       | Ground Level:                                                                     |                                                                                                                                               | Plant Used: Dando 4000             |          | Print Date: 14/05/2021 |            | Scale: 1:50   |                                                                                                        |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
| Weather:                                                                        |                           |                     | Termination:                 |                       |                                                                                   |                                                                                                                                               | SPT Hammer: N/R, Energy Ratio: N/R |          |                        |            | Sheet 2 of 2  |                                                                                                        |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
| Samples & In Situ Testing                                                       |                           |                     |                              |                       | Strata Details                                                                    |                                                                                                                                               |                                    |          |                        |            |               | Groundwater                                                                                            |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
| Depth                                                                           | Type                      | Results             | Level (mAOD)                 | Depth (m) (Thickness) | Legend                                                                            | Strata Description                                                                                                                            |                                    |          |                        |            |               | Water Strike                                                                                           | Backfill/ Installation |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
| 11.00                                                                           | SPT D                     | N=20 (2,4/4,4,6,6)  |                              | 11.30                 |  | Firm stiff greenish grey silty sandy CLAY. Partially laminated pockets of clay. Becoming increasingly sandy with depth. LONDON CLAY FORMATION |                                    |          |                        |            |               | 11                                                                                                     |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
| 12.00                                                                           | D                         |                     |                              |                       |                                                                                   |                                                                                                                                               |                                    |          |                        |            |               | Stiff greenish grey silty sandy CLAY, Sand is fine, Clay is partially laminated. LONDON CLAY FORMATION |                        |         |  |  |    | 12 |  |  |  |  |    |    |  |  |  |  |  |  |
| 12.50 - 12.85                                                                   | U                         |                     |                              |                       |                                                                                   |                                                                                                                                               |                                    |          |                        |            |               |                                                                                                        |                        |         |  |  |    | 13 |  |  |  |  |    |    |  |  |  |  |  |  |
| 12.85                                                                           | D                         |                     |                              |                       |                                                                                   |                                                                                                                                               |                                    |          |                        |            |               |                                                                                                        |                        |         |  |  |    |    |  |  |  |  |    | 14 |  |  |  |  |  |  |
| 13.50                                                                           | D                         |                     |                              |                       |                                                                                   |                                                                                                                                               |                                    |          |                        |            |               | 15                                                                                                     |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
| 14.00 - 14.35                                                                   | U                         |                     |                              |                       |                                                                                   |                                                                                                                                               |                                    |          |                        |            |               | 16                                                                                                     |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
| 14.35                                                                           | D                         |                     |                              |                       |                                                                                   |                                                                                                                                               |                                    |          |                        |            |               |                                                                                                        |                        |         |  |  | 17 |    |  |  |  |  |    |    |  |  |  |  |  |  |
| 14.50                                                                           | SPT D                     | N=33 (3,5/6,8,9,10) |                              | 15.00                 | End of Borehole at 15.00m                                                         |                                                                                                                                               |                                    |          |                        |            |               |                                                                                                        |                        |         |  |  | 18 |    |  |  |  |  |    |    |  |  |  |  |  |  |
|                                                                                 |                           |                     |                              |                       |                                                                                   |                                                                                                                                               |                                    |          |                        |            |               |                                                                                                        |                        |         |  |  | 19 |    |  |  |  |  |    |    |  |  |  |  |  |  |
|                                                                                 |                           |                     |                              |                       |                                                                                   |                                                                                                                                               |                                    |          |                        |            |               |                                                                                                        |                        |         |  |  |    |    |  |  |  |  | 20 |    |  |  |  |  |  |  |
|                                                                                 |                           |                     |                              |                       |                                                                                   |                                                                                                                                               |                                    |          |                        |            |               |                                                                                                        |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
|                                                                                 |                           |                     |                              |                       |                                                                                   |                                                                                                                                               |                                    |          |                        |            |               |                                                                                                        |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
| Start & End of Shift Observations                                               |                           |                     |                              |                       | Borehole Diameter                                                                 |                                                                                                                                               | Casing Diameter                    |          | Remarks:               |            |               |                                                                                                        |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
| Date                                                                            | Time                      | Depth (m)           | Casing (m)                   | Water (m)             | Depth (m)                                                                         | Dia (mm)                                                                                                                                      | Depth (m)                          | Dia (mm) |                        |            |               |                                                                                                        |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
|                                                                                 |                           |                     |                              |                       |                                                                                   |                                                                                                                                               |                                    |          |                        |            |               |                                                                                                        |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
| Chiselling                                                                      |                           |                     |                              |                       | Installation                                                                      |                                                                                                                                               |                                    |          | Water Strikes          |            |               |                                                                                                        |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
| From (m)                                                                        | To (m)                    | Duration            | Remarks                      |                       | Top (m)                                                                           | Base (m)                                                                                                                                      | Type                               | Dia (mm) | Strike (m)             | Casing (m) | Sealed (m)    | Time (mins)                                                                                            | Rose to (m)            | Remarks |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
|                                                                                 |                           |                     |                              |                       |                                                                                   |                                                                                                                                               |                                    |          |                        |            |               | 0                                                                                                      | 0.00                   |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |
| Hand vane (HV), Hand penetrometer (HP) reported in kPa. PID reported in ppm.    |                           |                     |                              |                       |                                                                                   |                                                                                                                                               |                                    |          |                        |            |               |                                                                                                        |                        |         |  |  |    |    |  |  |  |  |    |    |  |  |  |  |  |  |

|               |                           |             |            |          |      |           |    |
|---------------|---------------------------|-------------|------------|----------|------|-----------|----|
| Project Name: | Samson Gym                | Project No. | 19192      | Co-ords: |      | Hole Type | DP |
| Location:     | Eastleigh                 | Level:      | m AOD      | Scale    | 1:50 | Logged By | CF |
| Client:       | Eastleigh Borough Council | Dates:      | 23/03/2021 |          |      |           |    |

| Depth (m) | Blows/100mm |    |    |    |  | Torque (Nm) |
|-----------|-------------|----|----|----|--|-------------|
|           | 10          | 20 | 30 | 40 |  |             |
| 0         | 3           |    |    |    |  |             |
| 0.1       | 4           |    |    |    |  |             |
| 0.2       | 1           |    |    |    |  |             |
| 0.3       | 1           |    |    |    |  |             |
| 0.4       | 1           |    |    |    |  |             |
| 0.5       | 1           |    |    |    |  |             |
| 0.6       | 1           |    |    |    |  |             |
| 0.7       | 2           |    |    |    |  |             |
| 0.8       | 5           |    |    |    |  |             |
| 0.9       | 4           |    |    |    |  |             |
| 1.0       | 6           |    |    |    |  |             |
| 1.1       | 6           |    |    |    |  |             |
| 1.2       | 6           |    |    |    |  |             |
| 1.3       | 6           |    |    |    |  |             |
| 1.4       | 6           |    |    |    |  |             |
| 1.5       | 6           |    |    |    |  |             |
| 1.6       | 7           |    |    |    |  |             |
| 1.7       | 8           |    |    |    |  |             |
| 1.8       | 8           |    |    |    |  |             |
| 1.9       | 9           |    |    |    |  |             |
| 2.0       | 8           |    |    |    |  |             |
| 2.1       | 7           |    |    |    |  |             |
| 2.2       | 8           |    |    |    |  |             |
| 2.3       | 6           |    |    |    |  |             |
| 2.4       | 8           |    |    |    |  |             |
| 2.5       | 10          |    |    |    |  |             |
| 2.6       | 9           |    |    |    |  |             |
| 2.7       | 11          |    |    |    |  |             |
| 2.8       | 13          |    |    |    |  |             |
| 2.9       | 17          |    |    |    |  |             |
| 3.0       | 16          |    |    |    |  |             |
| 3.1       | 15          |    |    |    |  |             |
| 3.2       | 16          |    |    |    |  |             |
| 3.3       | 12          |    |    |    |  |             |
| 3.4       | 13          |    |    |    |  |             |
| 3.5       | 14          |    |    |    |  |             |
| 3.6       | 10          |    |    |    |  |             |
| 3.7       | 10          |    |    |    |  |             |
| 3.8       | 10          |    |    |    |  |             |
| 3.9       | 12          |    |    |    |  |             |
| 4.0       | 11          |    |    |    |  |             |
| 4.1       | 15          |    |    |    |  |             |
| 4.2       | 15          |    |    |    |  |             |
| 4.3       | 11          |    |    |    |  |             |
| 4.4       | 11          |    |    |    |  |             |
| 4.5       | 13          |    |    |    |  |             |
| 4.6       | 8           |    |    |    |  |             |
| 4.7       | 7           |    |    |    |  |             |
| 4.8       | 4           |    |    |    |  |             |
| 4.9       | 6           |    |    |    |  |             |
| 5.0       | 4           |    |    |    |  |             |
| 5.1       | 4           |    |    |    |  |             |
| 5.2       | 3           |    |    |    |  |             |
| 5.3       | 2           |    |    |    |  |             |
| 5.4       | 3           |    |    |    |  |             |
| 5.5       | 4           |    |    |    |  |             |
| 5.6       | 10          |    |    |    |  |             |
| 5.7       |             |    |    |    |  |             |
| 5.8       |             |    |    |    |  |             |
| 5.9       |             |    |    |    |  |             |
| 6.0       |             |    |    |    |  |             |
| 6.1       |             |    |    |    |  |             |
| 6.2       |             |    |    |    |  |             |
| 6.3       |             |    |    |    |  |             |
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| 6.6       |             |    |    |    |  |             |
| 6.7       |             |    |    |    |  |             |
| 6.8       |             |    |    |    |  |             |
| 6.9       |             |    |    |    |  |             |
| 7.0       |             |    |    |    |  |             |
| 7.1       |             |    |    |    |  |             |
| 7.2       |             |    |    |    |  |             |
| 7.3       |             |    |    |    |  |             |
| 7.4       |             |    |    |    |  |             |
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| 7.7       |             |    |    |    |  |             |
| 7.8       |             |    |    |    |  |             |
| 7.9       |             |    |    |    |  |             |
| 8.0       |             |    |    |    |  |             |
| 8.1       |             |    |    |    |  |             |
| 8.2       |             |    |    |    |  |             |
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| 8.4       |             |    |    |    |  |             |
| 8.5       |             |    |    |    |  |             |
| 8.6       |             |    |    |    |  |             |
| 8.7       |             |    |    |    |  |             |
| 8.8       |             |    |    |    |  |             |
| 8.9       |             |    |    |    |  |             |
| 9.0       |             |    |    |    |  |             |
| 9.1       |             |    |    |    |  |             |
| 9.2       |             |    |    |    |  |             |
| 9.3       |             |    |    |    |  |             |
| 9.4       |             |    |    |    |  |             |
| 9.5       |             |    |    |    |  |             |
| 9.6       |             |    |    |    |  |             |
| 9.7       |             |    |    |    |  |             |
| 9.8       |             |    |    |    |  |             |
| 9.9       |             |    |    |    |  |             |
| 10.0      |             |    |    |    |  |             |

|         |               |        |                    |        |
|---------|---------------|--------|--------------------|--------|
| Remarks | Fall Height   | 760mm  | Cone Base Diameter | 5.3mm  |
|         | Hammer Weight | 63.5kg | Final Depth        | 6m     |
|         | Probe Type    |        | Energy Ratio (Er)  | 80.28% |

|               |                           |             |            |          |  |           |      |
|---------------|---------------------------|-------------|------------|----------|--|-----------|------|
| Project Name: | Samson Gym                | Project No. | 19192      | Co-ords: |  | Hole Type | DP   |
| Location:     | Eastleigh                 | Level:      | m AOD      |          |  | Scale     | 1:50 |
| Client:       | Eastleigh Borough Council | Dates:      | 23/03/2021 |          |  | Logged By | CF   |

| Depth<br>(m) | Blows/100mm |    |    |    | Torque<br>(Nm) |
|--------------|-------------|----|----|----|----------------|
|              | 10          | 20 | 30 | 40 |                |
|              |             |    |    |    |                |
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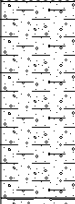
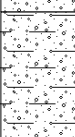
|               |                           |             |            |          |      |           |    |
|---------------|---------------------------|-------------|------------|----------|------|-----------|----|
| Project Name: | Samson Gym                | Project No. | 19192      | Co-ords: |      | Hole Type | DP |
| Location:     | Eastleigh                 | Level:      | m AOD      | Scale    | 1:50 | Logged By | CF |
| Client:       | Eastleigh Borough Council | Dates:      | 23/03/2021 |          |      |           |    |

| Depth (m) | Blows/100mm |    |    |    | Torque (Nm) |
|-----------|-------------|----|----|----|-------------|
|           | 10          | 20 | 30 | 40 |             |
| 0.0       | 4           |    |    |    | 5           |
| 0.1       | 4           |    |    |    |             |
| 0.2       | 5           |    |    |    |             |
| 0.3       | 3           |    |    |    |             |
| 0.4       | 2           |    |    |    |             |
| 0.5       | 1           |    |    |    | 5           |
| 0.6       | 2           |    |    |    |             |
| 0.7       | 2           |    |    |    |             |
| 0.8       | 1           |    |    |    |             |
| 0.9       | 1           |    |    |    |             |
| 1.0       | 2           |    |    |    | 10          |
| 1.1       | 5           |    |    |    |             |
| 1.2       | 6           |    |    |    |             |
| 1.3       | 5           |    |    |    |             |
| 1.4       | 5           |    |    |    |             |
| 1.5       | 4           |    |    |    | 25          |
| 1.6       | 3           |    |    |    |             |
| 1.7       | 7           |    |    |    |             |
| 1.8       | 10          |    |    |    |             |
| 1.9       | 12          |    |    |    |             |
| 2.0       | 10          |    |    |    | 25          |
| 2.1       | 9           |    |    |    |             |
| 2.2       | 10          |    |    |    |             |
| 2.3       | 9           |    |    |    |             |
| 2.4       | 7           |    |    |    |             |
| 2.5       | 6           |    |    |    | 30          |
| 2.6       | 7           |    |    |    |             |
| 2.7       | 9           |    |    |    |             |
| 2.8       | 7           |    |    |    |             |
| 2.9       | 3           |    |    |    |             |
| 3.0       | 2           |    |    |    | 30          |
| 3.1       | 1           |    |    |    |             |
| 3.2       | 6           |    |    |    |             |
| 3.3       | 7           |    |    |    |             |
| 3.4       | 10          |    |    |    |             |
| 3.5       | 9           |    |    |    | 30          |
| 3.6       | 8           |    |    |    |             |
| 3.7       | 12          |    |    |    |             |
| 3.8       | 11          |    |    |    |             |
| 3.9       | 10          |    |    |    |             |
| 4.0       | 11          |    |    |    | 30          |
| 4.1       | 8           |    |    |    |             |
| 4.2       | 2           |    |    |    |             |
| 4.3       | 3           |    |    |    |             |
| 4.4       | 3           |    |    |    |             |
| 4.5       | 4           |    |    |    | 30          |
| 4.6       | 4           |    |    |    |             |
| 4.7       | 3           |    |    |    |             |
| 4.8       | 3           |    |    |    |             |
| 4.9       | 2           |    |    |    |             |
| 5.0       | 3           |    |    |    | 30          |
| 5.1       | 4           |    |    |    |             |
| 5.2       | 4           |    |    |    |             |
| 5.3       | 4           |    |    |    |             |
| 5.4       | 4           |    |    |    |             |
| 5.5       | 3           |    |    |    | 30          |
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| 8.0       |             |    |    |    | 30          |
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| 10.0      |             |    |    |    |             |

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|---------|---------------|--------|--------------------|-------|
| Remarks | Fall Height   | 760mm  | Cone Base Diameter | 5.3mm |
|         | Hammer Weight | 63.5kg | Final Depth        | 6m    |
|         | Probe Type    |        | Energy Ratio (Er)  | %     |

|  |                           | <b>Soils Limited</b><br>Newton House, Cross Road, Tadworth KT20 5SR<br>Tel: 01737 814221 Email: admin@soilslimited.co.uk |         |                     | <b>Trial Pit Log</b> |                           | Trial Pit No.<br><b>TPSA1</b><br>Sheet 1 of 1                                                                                                                                                                                            |                                                                     |
|----------------------------------------------------------------------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------|---------|---------------------|----------------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Project Name: Samson Gym                                                         |                           |                                                                                                                          |         | Project No.: 19192  |                      | Method: Machine Excavated |                                                                                                                                                                                                                                          | Hole Type<br>TP                                                     |
| Location: Eastleigh                                                              |                           |                                                                                                                          |         |                     |                      | Plant: JCB                |                                                                                                                                                                                                                                          |                                                                     |
| Client: Eastleigh Borough Council                                                |                           |                                                                                                                          |         | Trial Pit Length: m |                      | Trial Pit Width: m        |                                                                                                                                                                                                                                          | Scale<br>1:25                                                       |
| Dates: 22/03/2021                                                                |                           |                                                                                                                          |         | Level:              |                      | Co-ords:                  |                                                                                                                                                                                                                                          | Logged By<br>CF                                                     |
| Water<br>Strike                                                                  | Samples & In Situ Testing |                                                                                                                          |         | Depth<br>(m)        | Level<br>(mAOD)      | Legend                    | Stratum Description                                                                                                                                                                                                                      |                                                                     |
|                                                                                  | Depth                     | Type                                                                                                                     | Results |                     |                      |                           |                                                                                                                                                                                                                                          |                                                                     |
|                                                                                  |                           |                                                                                                                          |         | 0.05                |                      |                           | Tarmac. MADE GROUND                                                                                                                                                                                                                      |                                                                     |
|                                                                                  |                           |                                                                                                                          |         | 0.10                |                      |                           | Pinkish grey fine to medium limestone GRAVEL. MADE GROUND.                                                                                                                                                                               |                                                                     |
|                                                                                  | 0.30                      | D                                                                                                                        |         |                     |                      |                           | Dark brown slightly sandy cobbly gravelly CLAY. Gravel is angular to sub rounded, fine to coarse, flint, brick, concrete and breeze block. Cobble is angular to sub rounded, breeze block and concrete. Occasional rootlets. MADE GROUND |                                                                     |
|                                                                                  | 0.60                      | D                                                                                                                        |         | 0.50                |                      |                           | Dark orangish brown slightly sandy slightly gravelly CLAY. Gravel is sub-angular to sub-rounded, fine to coarse flint. RIVER TERRACE DEPOSITS                                                                                            |                                                                     |
|                                                                                  | 0.90                      | D                                                                                                                        |         |                     |                      |                           |                                                                                                                                                                                                                                          |                                                                     |
|                                                                                  | 1.50                      | D                                                                                                                        |         | 1.60                |                      |                           | End of Pit at 1.600m                                                                                                                                                                                                                     |                                                                     |
| General Remarks:                                                                 |                           |                                                                                                                          |         |                     |                      |                           |                                                                                                                                                                                                                                          | <b>Sample Type</b><br>D: Disturbed<br>B: Bulk<br>J: Jar<br>W: Water |
| Groundwater Remarks: No groundwater encountered                                  |                           |                                                                                                                          |         |                     |                      |                           |                                                                                                                                                                                                                                          |                                                                     |

|                                                                                 |                                                                                                                                                                      |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  |              |                                                                                     |                            |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------|-----------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------|---------------------------|------------|------------------|--------------|-------------------------------------------------------------------------------------|----------------------------|
|  | Contract Name:<br>Samson Gym                                                                                                                                         |           |                                 |                       | Client:<br>Eastleigh Borough Council                                              |                                                                                                                                                                                |                        |              | Hole ID:<br>WS1           |            |                  |              |                                                                                     |                            |
|                                                                                 | Contract Number:<br>19192                                                                                                                                            |           | Start and End Date:<br>23/03/21 |                       | Logged By:<br>CF                                                                  |                                                                                                                                                                                | Checked By:<br>JD      |              | Status:<br>FINAL          |            | Hole Type:<br>WS |              |                                                                                     |                            |
|                                                                                 | Easting:                                                                                                                                                             |           | Northing:                       |                       | Ground Level:                                                                     |                                                                                                                                                                                | Plant Used:<br>Archway |              | Print Date:<br>14/05/2021 |            | Scale:<br>1:50   |              |                                                                                     |                            |
| Weather:                                                                        |                                                                                                                                                                      |           | Termination:                    |                       |                                                                                   |                                                                                                                                                                                |                        | Sheet 1 of 1 |                           |            |                  |              |                                                                                     |                            |
| Samples & In Situ Testing                                                       |                                                                                                                                                                      |           |                                 | Strata Details        |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  | Groundwater  |                                                                                     |                            |
| Depth                                                                           | Type                                                                                                                                                                 | Results   | Level (mAOD)                    | Depth (m) (Thickness) | Legend                                                                            | Strata Description                                                                                                                                                             |                        |              |                           |            |                  | Water Strike | Backfill/Installation                                                               |                            |
| 0.20                                                                            | D                                                                                                                                                                    |           |                                 | 0.10                  |  | Tarmac. MADE GROUND                                                                                                                                                            |                        |              |                           |            |                  | 1            |  |                            |
| ES                                                                              | Red angular to sub rounded, fine to coarse, brick GRAVEL. MADE GROUND.                                                                                               |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  |              |                                                                                     |                            |
| 0.40                                                                            | D                                                                                                                                                                    |           |                                 | 0.35                  |  | Soft, dark greyish brown slightly sandy, slightly gravelly CLAY. Gravel is sub angular to sub rounded, fine, flint and occasional brick. Frequent black staining. MADE GROUND. |                        |              |                           |            |                  |              |                                                                                     |                            |
| ES                                                                              | Soft orangish brown slightly sandy, slightly gravelly CLAY. Gravel is sub angular to sub rounded, fine to medium, flint. Occasional rootlets. RIVER TERRACE DEPOSITS |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  |              |                                                                                     |                            |
| 0.80                                                                            | D                                                                                                                                                                    |           |                                 | 0.50                  |  |                                                                                                                                                                                |                        |              |                           |            |                  |              |                                                                                     |                            |
| ES                                                                              |                                                                                                                                                                      |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  |              |                                                                                     |                            |
| 1.30                                                                            | D                                                                                                                                                                    |           |                                 | (0.50)                |  | Orangish brown slightly sandy, very clayey GRAVEL. Gravel is sub angular to sub rounded fine to coarse flint. Occasional rootlets. RIVER TERRACE DEPOSITS                      |                        |              |                           |            |                  |              |                                                                                     |                            |
| ES                                                                              |                                                                                                                                                                      |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  |              |                                                                                     |                            |
| 1.80                                                                            | D                                                                                                                                                                    |           |                                 | 1.00                  |  |                                                                                                                                                                                |                        |              |                           |            |                  |              |                                                                                     |                            |
|                                                                                 |                                                                                                                                                                      |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  |              |                                                                                     |                            |
| 2.20                                                                            | D                                                                                                                                                                    | (2.30)    |                                 | 1.70                  |  | Yellowish brown slightly clayey, sandy GRAVEL. Gravel is sub angular to sub rounded, fine to coarse, flint. RIVER TERRACE DEPOSITS                                             |                        |              |                           |            |                  | 2            |  |                            |
| 2.70                                                                            | D                                                                                                                                                                    |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  |              |                                                                                     |                            |
| 3.20                                                                            | D                                                                                                                                                                    |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  |              |                                                                                     |                            |
|                                                                                 |                                                                                                                                                                      |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  |              |                                                                                     |                            |
| 3.70                                                                            | D                                                                                                                                                                    |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  |              |                                                                                     |                            |
|                                                                                 |                                                                                                                                                                      |           |                                 |                       |                                                                                   | End of Borehole at 4.00m                                                                                                                                                       |                        |              |                           |            |                  | 4            |                                                                                     |                            |
|                                                                                 |                                                                                                                                                                      |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  | 5            |                                                                                     |                            |
|                                                                                 |                                                                                                                                                                      |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  | 6            |                                                                                     |                            |
|                                                                                 |                                                                                                                                                                      |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  | 7            |                                                                                     |                            |
|                                                                                 |                                                                                                                                                                      |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  | 8            |                                                                                     |                            |
|                                                                                 |                                                                                                                                                                      |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  | 9            |                                                                                     |                            |
|                                                                                 |                                                                                                                                                                      |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  | 10           |                                                                                     |                            |
| Start & End of Shift Observations                                               |                                                                                                                                                                      |           |                                 |                       | Borehole Diameter                                                                 |                                                                                                                                                                                | Casing Diameter        |              | Remarks:                  |            |                  |              |                                                                                     |                            |
| Date                                                                            | Time                                                                                                                                                                 | Depth (m) | Casing (m)                      | Water (m)             | Depth (m)                                                                         | Dia (mm)                                                                                                                                                                       | Depth (m)              | Dia (mm)     |                           |            |                  |              |                                                                                     |                            |
|                                                                                 |                                                                                                                                                                      |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  |              |                                                                                     |                            |
| Chiselling                                                                      |                                                                                                                                                                      |           |                                 |                       | Installation                                                                      |                                                                                                                                                                                |                        |              | Water Strikes             |            |                  |              |                                                                                     |                            |
| From (m)                                                                        | To (m)                                                                                                                                                               | Duration  | Remarks                         |                       | Top (m)                                                                           | Base (m)                                                                                                                                                                       | Type                   | Dia (mm)     | Strike (m)                | Casing (m) | Sealed (m)       | Time (mins)  | Rose to (m)                                                                         | Remarks                    |
|                                                                                 |                                                                                                                                                                      |           |                                 |                       | 0.00                                                                              | 1.00                                                                                                                                                                           | PLAIN                  | 50           |                           |            |                  | 0            | 0.00                                                                                | No groundwater encountered |
|                                                                                 |                                                                                                                                                                      |           |                                 |                       | 1.00                                                                              | 3.70                                                                                                                                                                           | SLOTTED                | 50           |                           |            |                  |              |                                                                                     |                            |
| Hand vane (HV), Hand penetrometer (HP) reported in kPa. PID reported in ppm.    |                                                                                                                                                                      |           |                                 |                       |                                                                                   |                                                                                                                                                                                |                        |              |                           |            |                  |              |                                                                                     |                            |

|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                                  |                        |              |                           |            |                  |              |                       |                            |
|---------------------------------------------------------------------------------|------------------------------|-----------|---------------------------------|-----------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------|---------------------------|------------|------------------|--------------|-----------------------|----------------------------|
|  | Contract Name:<br>Samson Gym |           |                                 |                       | Client:<br>Eastleigh Borough Council                                              |                                                                                                                                                                                  |                        |              | Hole ID:<br>WS2           |            |                  |              |                       |                            |
|                                                                                 | Contract Number:<br>19192    |           | Start and End Date:<br>23/03/21 |                       | Logged By:<br>CF                                                                  |                                                                                                                                                                                  | Checked By:<br>JD      |              | Status:<br>FINAL          |            | Hole Type:<br>WS |              |                       |                            |
|                                                                                 | Easting:                     |           | Northing:                       |                       | Ground Level:                                                                     |                                                                                                                                                                                  | Plant Used:<br>Archway |              | Print Date:<br>14/05/2021 |            | Scale:<br>1:50   |              |                       |                            |
| Weather:                                                                        |                              |           | Termination:                    |                       |                                                                                   |                                                                                                                                                                                  |                        | Sheet 1 of 1 |                           |            |                  |              |                       |                            |
| Samples & In Situ Testing                                                       |                              |           |                                 |                       | Strata Details                                                                    |                                                                                                                                                                                  |                        |              |                           |            |                  | Groundwater  |                       |                            |
| Depth                                                                           | Type                         | Results   | Level (mAOD)                    | Depth (m) (Thickness) | Legend                                                                            | Strata Description                                                                                                                                                               |                        |              |                           |            |                  | Water Strike | Backfill/Installation |                            |
| 0.40                                                                            | D<br>ES                      |           |                                 | 0.10                  |  | Tarmac. MADE GROUND                                                                                                                                                              |                        |              |                           |            |                  |              |                       |                            |
|                                                                                 |                              |           |                                 | 0.30                  |  | Red angular to sub rounded, fine to coarse, brick GRAVEL. MADE GROUND.                                                                                                           |                        |              |                           |            |                  |              |                       |                            |
| 0.80                                                                            | D<br>ES                      |           |                                 | (1.30)                |  | Soft to firm, orangish brown slightly sandy, slightly gravelly CLAY. Gravel is sub angular to sub rounded, fine to medium, flint. Occasional rootlets. RIVER TERRACE DEPOSITS    |                        |              |                           |            |                  | 1            |                       |                            |
| 1.30                                                                            | D<br>ES                      |           |                                 |                       |                                                                                   |                                                                                                                                                                                  |                        |              |                           |            |                  |              |                       |                            |
| 1.70                                                                            | D<br>ES                      |           |                                 | 1.60                  |  | Orangish brown slightly sandy, very clayey GRAVEL. Gravel is sub angular to sub rounded, fine to coarse flint, Occasional rootlets. Strong organic odour. RIVER TERRACE DEPOSITS |                        |              |                           |            |                  | 2            |                       |                            |
| 2.30                                                                            | D<br>ES                      |           |                                 | (0.70)                |                                                                                   |                                                                                                                                                                                  |                        |              |                           |            |                  |              |                       |                            |
| 2.70                                                                            | D<br>ES                      |           |                                 | 2.30                  |  | Yellowish brown slightly clayey, sandy, sub angular to sub rounded, fine to coarse, flint GRAVEL. Strong organic odour. RIVER TERRACE DEPOSITS                                   |                        |              |                           |            |                  | 3            |                       |                            |
| 3.30                                                                            | D<br>ES                      |           |                                 | (1.70)                |                                                                                   |                                                                                                                                                                                  |                        |              |                           |            |                  |              |                       |                            |
| 3.70                                                                            | D<br>ES                      |           |                                 | 4.00                  | End of Borehole at 4.00m                                                          |                                                                                                                                                                                  |                        |              |                           |            | 4                |              |                       |                            |
|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                                  |                        |              |                           |            |                  | 5            |                       |                            |
|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                                  |                        |              |                           |            |                  | 6            |                       |                            |
|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                                  |                        |              |                           |            |                  | 7            |                       |                            |
|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                                  |                        |              |                           |            |                  | 8            |                       |                            |
|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                                  |                        |              |                           |            |                  | 9            |                       |                            |
|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                                  |                        |              |                           |            |                  | 10           |                       |                            |
| Start & End of Shift Observations                                               |                              |           |                                 |                       | Borehole Diameter                                                                 |                                                                                                                                                                                  | Casing Diameter        |              | Remarks:                  |            |                  |              |                       |                            |
| Date                                                                            | Time                         | Depth (m) | Casing (m)                      | Water (m)             | Depth (m)                                                                         | Dia (mm)                                                                                                                                                                         | Depth (m)              | Dia (mm)     |                           |            |                  |              |                       |                            |
|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                                  |                        |              |                           |            |                  |              |                       |                            |
| Chiselling                                                                      |                              |           |                                 |                       | Installation                                                                      |                                                                                                                                                                                  |                        |              | Water Strikes             |            |                  |              |                       |                            |
| From (m)                                                                        | To (m)                       | Duration  | Remarks                         |                       | Top (m)                                                                           | Base (m)                                                                                                                                                                         | Type                   | Dia (mm)     | Strike (m)                | Casing (m) | Sealed (m)       | Time (mins)  | Rose to (m)           | Remarks                    |
|                                                                                 |                              |           |                                 |                       | 0.00                                                                              | 1.00                                                                                                                                                                             | PLAIN                  | 50           |                           |            |                  | 0            | 0.00                  | No groundwater encountered |
|                                                                                 |                              |           |                                 |                       | 1.00                                                                              | 3.90                                                                                                                                                                             | SLOTTED                | 50           |                           |            |                  |              |                       |                            |
| Hand vane (HV), Hand penetrometer (HP) reported in kPa. PID reported in ppm.    |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                                  |                        |              |                           |            |                  |              |                       |                            |

|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                               |                        |               |                           |            |                  |              |                       |                            |
|---------------------------------------------------------------------------------|------------------------------|-----------|---------------------------------|-----------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------|---------------------------|------------|------------------|--------------|-----------------------|----------------------------|
|  | Contract Name:<br>Samson Gym |           |                                 |                       | Client:<br>Eastleigh Borough Council                                              |                                                                                                                                                                               |                        |               | Hole ID:<br>WS4           |            |                  |              |                       |                            |
|                                                                                 | Contract Number:<br>19192    |           | Start and End Date:<br>23/03/21 |                       | Logged By:<br>CF                                                                  |                                                                                                                                                                               | Checked By:<br>JD      |               | Status:<br>FINAL          |            | Hole Type:<br>WS |              |                       |                            |
|                                                                                 | Easting:                     |           | Northing:                       |                       | Ground Level:                                                                     |                                                                                                                                                                               | Plant Used:<br>Archway |               | Print Date:<br>14/05/2021 |            | Scale:<br>1:50   |              |                       |                            |
| Weather:                                                                        |                              |           | Termination:                    |                       |                                                                                   |                                                                                                                                                                               |                        | Sheet 1 of 1  |                           |            |                  |              |                       |                            |
| Samples & In Situ Testing                                                       |                              |           |                                 | Strata Details        |                                                                                   |                                                                                                                                                                               |                        |               |                           |            |                  | Groundwater  |                       |                            |
| Depth                                                                           | Type                         | Results   | Level (mAOD)                    | Depth (m) (Thickness) | Legend                                                                            | Strata Description                                                                                                                                                            |                        |               |                           |            |                  | Water Strike | Backfill/Installation |                            |
| 0.40                                                                            | D<br>ES                      |           |                                 | 0.20                  |  | Concrete slab. MADE GROUND                                                                                                                                                    |                        |               |                           |            |                  |              |                       |                            |
|                                                                                 |                              |           |                                 | (0.30)                |  | Loosely cemented CONCRETE. MADE GROUND.                                                                                                                                       |                        |               |                           |            |                  |              |                       |                            |
| 0.70                                                                            | D<br>ES                      |           |                                 | 0.50                  |  | Soft to firm, orangish brown slightly sandy, slightly gravelly CLAY. Gravel is sub angular to sub rounded, fine to medium, flint. Occasional rootlets. RIVER TERRACE DEPOSITS |                        |               |                           |            |                  | 1            |                       |                            |
| 1.20                                                                            | D<br>ES                      |           |                                 | (0.90)                |  |                                                                                                                                                                               |                        |               |                           |            |                  |              |                       |                            |
| 1.70                                                                            | D<br>ES                      |           |                                 | 1.40                  |  | Orangish brown slightly sandy, very clayey, GRAVEL. Gravel is sub angular to sub rounded, fine to coarse flint. Occasional rootlets. RIVER TERRACE DEPOSITS                   |                        |               |                           |            |                  | 2            |                       |                            |
| 2.20                                                                            | D                            |           |                                 | (0.70)                |  |                                                                                                                                                                               |                        |               |                           |            |                  |              |                       |                            |
| 2.70                                                                            | D                            |           |                                 | 2.10                  |  | Yellowish brown slightly clayey, sandy, sub angular to sub rounded, fine to coarse, flint GRAVEL. Slight organic odour. RIVER TERRACE DEPOSITS                                |                        |               |                           |            |                  | 3            |                       |                            |
| 3.20                                                                            | D<br>ES                      |           |                                 | (1.90)                |  |                                                                                                                                                                               |                        |               |                           |            |                  |              |                       |                            |
| 3.70                                                                            | D<br>ES                      |           |                                 | 4.00                  |  | End of Borehole at 4.00m                                                                                                                                                      |                        |               |                           |            |                  | 4            |                       |                            |
|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                               |                        |               |                           |            |                  |              |                       |                            |
|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                               |                        |               |                           |            |                  | 5            |                       |                            |
|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                               |                        |               |                           |            |                  | 6            |                       |                            |
|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                               |                        |               |                           |            |                  | 7            |                       |                            |
|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                               |                        |               |                           |            |                  | 8            |                       |                            |
|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                               |                        |               |                           |            |                  | 9            |                       |                            |
|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                               |                        |               |                           |            |                  | 10           |                       |                            |
| Start & End of Shift Observations                                               |                              |           |                                 | Borehole Diameter     |                                                                                   | Casing Diameter                                                                                                                                                               |                        | Remarks:      |                           |            |                  |              |                       |                            |
| Date                                                                            | Time                         | Depth (m) | Casing (m)                      | Water (m)             | Depth (m)                                                                         | Dia (mm)                                                                                                                                                                      | Depth (m)              |               |                           |            |                  |              |                       | Dia (mm)                   |
|                                                                                 |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                               |                        |               |                           |            |                  |              |                       |                            |
| Chiselling                                                                      |                              |           |                                 | Installation          |                                                                                   |                                                                                                                                                                               |                        | Water Strikes |                           |            |                  |              |                       |                            |
| From (m)                                                                        | To (m)                       | Duration  | Remarks                         |                       | Top (m)                                                                           | Base (m)                                                                                                                                                                      | Type                   | Dia (mm)      | Strike (m)                | Casing (m) | Sealed (m)       | Time (mins)  | Rose to (m)           | Remarks                    |
|                                                                                 |                              |           |                                 |                       | 0.00                                                                              | 1.00                                                                                                                                                                          | PLAIN                  | 50            |                           |            |                  | 0            | 0.00                  | No groundwater encountered |
|                                                                                 |                              |           |                                 |                       | 1.00                                                                              | 3.80                                                                                                                                                                          | SLOTTED                | 50            |                           |            |                  |              |                       |                            |
| Hand vane (HV), Hand penetrometer (HP) reported in kPa. PID reported in ppm.    |                              |           |                                 |                       |                                                                                   |                                                                                                                                                                               |                        |               |                           |            |                  |              |                       |                            |

## Appendix C Geotechnical In-Situ and Laboratory Testing

### Appendix C.I Classification

#### **Classification based on SPT “N” values:**

The inferred undrained strength of the cohesive soils was based on the SPT “N” blow counts, derived from the relationship suggested by Stroud (1974) and classified using Table C.1.1. (Ref: Stroud, M. A. 1974, “The Standard Penetration Test – its application and interpretation”, Proc. ICE Conf. on Penetration Testing in the UK, Birmingham. Thomas Telford, London.).

**Table C.1.1 SPT “N” Blow Count Cohesive Classification**

| <b>Classification</b>                                             | <b>Undrained Cohesive Strength <math>C_u</math> (kPa)</b> |
|-------------------------------------------------------------------|-----------------------------------------------------------|
| Extremely low                                                     | <10                                                       |
| Very low                                                          | 10 – 20                                                   |
| Low                                                               | 20 – 40                                                   |
| Medium                                                            | 40 – 75                                                   |
| High                                                              | 75 – 150                                                  |
| Very high                                                         | 150 – 300                                                 |
| Extremely high                                                    | > 300                                                     |
| <b>Note(s):</b> (Ref: BS EN ISO 14688-2:2004+A1:2013 Clause 5.3.) |                                                           |

The relative density of granular soils was classified based of the relationship given in Table C.1.2.

The *UK National Annex to Eurocode 7: Geotechnical design – Part 2: Ground investigation and testing, NA 3.7 SPT test, BS EN 1997-2:2007, Annex F* states “Relative density descriptions on borehole records should also be based on uncorrected SPT N values, unless significantly disturbed, using the density classification in BS 5930:2015, Table 7.

**Table C.1.2 SPT “N” Blow Count Granular Classification**

| <b>Classification</b>                                                                               | <b>SPT “N” blow count (blows/300mm)</b> |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------|
| Very loose                                                                                          | 0 to 4                                  |
| Loose                                                                                               | 4 to 10                                 |
| Medium dense                                                                                        | 10 to 30                                |
| Dense                                                                                               | 30 to 50                                |
| Very dense                                                                                          | Greater than 50                         |
| <b>Note(s):</b> (Ref: The Standard Penetration Test (SPT): Methods and Use, CIRIA Report 143, 1995) |                                         |

**Appendix C.2 Interpretation****Table C.2.1 Interpretation of SPT Tests**

| <b>BH</b> | <b>Strata</b>                | <b>SPT N60 Blow Counts</b> | <b>Inferred Cohesive Strength/Granular Density</b> |
|-----------|------------------------------|----------------------------|----------------------------------------------------|
| BHI       | RTD<br>0.60 – 2.90<br>CLAY   | 26                         | High<br>(Cu = 130kPa)                              |
|           | RTD<br>2.90 – 5.90<br>GRAVEL | 38 – 41                    | Dense                                              |
|           | LC<br>5.90 – 15.00<br>CLAY   | 25 – 38                    | High to very high<br>(Cu = 125 – 190kPa)           |

**Table C.2.2 Interpretation of DPSH Blow Counts**

| <b>DP</b> | <b>Strata</b>                                          | <b>Equivalent SPT N60 Blow Counts</b> | <b>Inferred Cohesive Strength/Granular Density</b> |
|-----------|--------------------------------------------------------|---------------------------------------|----------------------------------------------------|
| DPI       | RTD<br>0.65 – 1.10<br>CLAY                             | 4 – 8                                 | Low<br>(Cu = 20 – 40kPa)                           |
|           | RTD<br>1.10 – 3.10<br>GRAVEL                           | 19 – 35                               | Medium dense to dense                              |
|           | RTD <sup>1</sup><br>3.10 – 5.20 <sup>1</sup><br>GRAVEL | 39 – >50                              | Dense to very dense                                |
|           | LC<br>5.20 <sup>1</sup> – 6.00 <sup>1</sup><br>CLAY    | 8 – 15                                | Medium<br>(Cu = 40 – 75kPa)                        |
| DP2       | RTD<br>0.50 – 1.50<br>CLAY                             | 4 – 8                                 | Low<br>(Cu = 20 – 40kPa)                           |
|           | RTD<br>1.50 – 2.10<br>SAND                             | 15 – 23                               | Medium dense                                       |
|           | RTD<br>2.10 – 3.40<br>GRAVEL                           | 23 – 50                               | Medium dense to dense                              |
|           | RTD<br>3.40 – 3.70<br>CLAY                             | 4 – 8                                 | Low<br>(Cu = 20 – 40kPa)                           |
|           | RTD<br>3.70 – 4.60 <sup>1</sup><br>GRAVEL              | 27 – 42                               | Medium dense to dense                              |
|           | LC<br>4.60 <sup>1</sup> – 6.00 <sup>1</sup><br>CLAY    | 8 – 15                                | Medium<br>(Cu = 40 – 75kPa)                        |
|           |                                                        |                                       |                                                    |

| DP                                                                                                  | Strata                                              | Equivalent SPT<br>N60 Blow<br>Counts | Inferred Cohesive Strength/Granular Density |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------|---------------------------------------------|
| DP4                                                                                                 | RTD<br>0.60 – 1.50<br>CLAY                          | 4 – 8                                | Low<br>(Cu = 20 – 40kPa)                    |
|                                                                                                     | RTD<br>1.50 – 2.10<br>SAND                          | 15 – 19                              | Medium dense                                |
|                                                                                                     | RTD<br>2.10 – 3.40<br>GRAVEL                        | 27 – 46                              | Medium dense to dense                       |
|                                                                                                     | RTD<br>3.40 – 3.70<br>CLAY                          | 4 – 12                               | Low to medium<br>(Cu = 20 – 60kPa)          |
|                                                                                                     | RTD<br>3.70 – 4.70 <sup>1</sup><br>GRAVEL           | 27 – 42                              | Medium dense to dense                       |
|                                                                                                     | LC<br>4.70 <sup>1</sup> – 6.00 <sup>1</sup><br>CLAY | 8 – 12                               | Medium<br>(Cu = 40 – 60kPa)                 |
| DPI01                                                                                               | RTD<br>1.20 – 2.30<br>CLAY                          | 4 - 39                               | Low to very high<br>(Cu = 20 – 195kPa)      |
|                                                                                                     | RTD<br>2.30 – 4.80 <sup>1</sup><br>SAND/GRAVEL      | 26 - 78                              | Medium dense to very dense                  |
|                                                                                                     | LC<br>4.80 <sup>1</sup> – 6.00 <sup>1</sup><br>CLAY | 9-22                                 | Medium to high<br>(Cu = 45 – 110kPa)        |
| DPI02                                                                                               | RTD<br>0.45 – 1.30<br>CLAY                          | 0 - 4                                | Extremely low to low<br>(Cu = <10 – 20kPa)  |
|                                                                                                     | RTD<br>1.30 – 2.20<br>CLAY                          | 9 - 43                               | Medium to very high<br>(Cu = 45 – 215kPa)   |
|                                                                                                     | RTD<br>2.20 – 6.00 <sup>1</sup><br>SAND/GRAVEL      | 26 – 78                              | Medium dense to very dense                  |
| DPI03                                                                                               | RTD<br>0.40 – 1.95<br>CLAY                          | 4 - 30                               | Low to medium<br>(Cu = 20 – 150kPa)         |
|                                                                                                     | RTD<br>1.95 – 6.00 <sup>1</sup><br>SAND/GRAVEL      | 22 – 74                              | Medium dense to very dense                  |
| DPI04                                                                                               | RTD<br>0.30 – 1.80<br>CLAY                          | 9 – 35                               | Medium to high<br>(Cu = 45 – 175kPa)        |
|                                                                                                     | RTD<br>1.80 – 4.00<br>SAND/GRAVEL                   | 13 - 82                              | Medium dense to very dense                  |
|                                                                                                     | LC<br>4.00 <sup>1</sup> – 6.00 <sup>1</sup><br>CLAY | 9 - 22                               | Medium to high<br>(Cu = 45 – 110kPa)        |
| <b>Note:</b> <sup>1</sup> Ground conditions inferred past the base of windowless sampler boreholes. |                                                     |                                      |                                             |

**Table C.2.3 Interpretation of QUU Tests**

| Location | Stratum | Sample Depth<br>(m bgl) | Moisture<br>Content (%) | Soil Strength | Shear Strength<br>(kPa) |
|----------|---------|-------------------------|-------------------------|---------------|-------------------------|
| BHI      | LC      | 9.50 – 9.95             | 24                      | Medium        | 42                      |
| BHI      | LC      | 12.50 – 12.85           | 26                      | High          | 125                     |
| BHI      | LC      | 14.00 – 14.35           | 23                      | Very high     | 166                     |

**Table C.2.4 Interpretation of Atterberg Limit Tests**

| Stratum | Moisture<br>Content<br>(%) | Plasticity<br>Index<br>(%) | Passing<br>425µm<br>Sieve<br>(%) | Modified<br>Plasticity<br>Index<br>(%) | Soil<br>Classification | Volume<br>Change Potential |                  |
|---------|----------------------------|----------------------------|----------------------------------|----------------------------------------|------------------------|----------------------------|------------------|
|         |                            |                            |                                  |                                        |                        | BRE                        | NHBC             |
| RTD     | 15 – 22                    | 21 – 24                    | 72 – 100                         | 17 – 23                                | CI                     | Low to<br>medium           | Low to<br>medium |
| LCF     | 29                         | 35                         | 100                              | 35                                     | CH                     | Medium                     | Medium           |

**Note:** BRE Volume Change Potential refers to BRE Digest 240 (based on Atterberg results)

NHBC Volume Change Potential refers to NHBC Standards Chapter 4.2

Soils Classification based on British Soil Classification System

*The most common use of the term clay is to describe a soil that contains enough clay-sized material or clay minerals to exhibit cohesive properties. The fraction of clay-sized material required varies, but can be as low as 15%. Unless stated otherwise, this is the sense used in Digest 240. The term can be used to denote the clay minerals. These are specific, naturally occurring chemical compounds, predominately silicates. The term is often used as a particle size descriptor. Soil particles that have a nominal diameter of less than 2 µm are normally considered to be of clay size, but they are not necessarily clay minerals. Some clay minerals are larger than 2 µm and some particles, 'rock flour' for example, can be finer than 2 µm but are not clay minerals.*

(The Atterberg Limit Tests were undertaken in accordance with BS 1377:Part 2:1990 Clauses 3.2, 4.3 and 5)

**Table C.2.5 Interpretation of PSD Tests**

| Location | Depth<br>(m bgl) | Soil Description                                                              | Volume Change<br>Potential |      | Passing<br>63µm Sieve (%) |
|----------|------------------|-------------------------------------------------------------------------------|----------------------------|------|---------------------------|
|          |                  |                                                                               | BRE                        | NHBC |                           |
| WS1      | 1.30             | Dark brown clayey/silty fine to coarse sandy fine to coarse GRAVEL.           | No                         | No   | 13                        |
| WS2      | 2.30             | Brown slightly clayey/silty fine to coarse sandy fine to coarse GRAVEL.       | No                         | No   | 6                         |
| WS4      | 1.70             | Dark brown slightly clayey/silty fine to coarse sandy fine to coarse GRAVEL.  | No                         | No   | 9                         |
| BHI      | 3.00             | Light brown slightly clayey/silty fine to coarse sandy fine to coarse GRAVEL. | No                         | No   | 8                         |

**Note:** BRE 240 states that a soil has a volume change potential when the clay fraction **exceeds 15%**. Only the silt and clay combined fraction are determined by sieving therefore the volume change potential is estimated from the percentage passing the 63µm sieve. NHBC Standards Chapter 4.2 states that a soil is shrinkable if the percentage of silt and clay passing the 63µm sieve is greater than 35% and the Plasticity Index is greater than 10%.

(The Particle Size Distribution Tests were undertaken in accordance with BS 1377: Part 2: 1990 Clause 9)

## **Appendix C.3 Geotechnical In-Situ and Laboratory Results**

## Soakaway Calculations

|                          |              |
|--------------------------|--------------|
| <b>Soakaway Test No.</b> | TPSA1 Test 1 |
| <b>Contract:</b>         | Samsons Gym  |
| <b>Contract No.</b>      | 19192        |

## Field Test

Trial Pit Log (include details of groundwater):

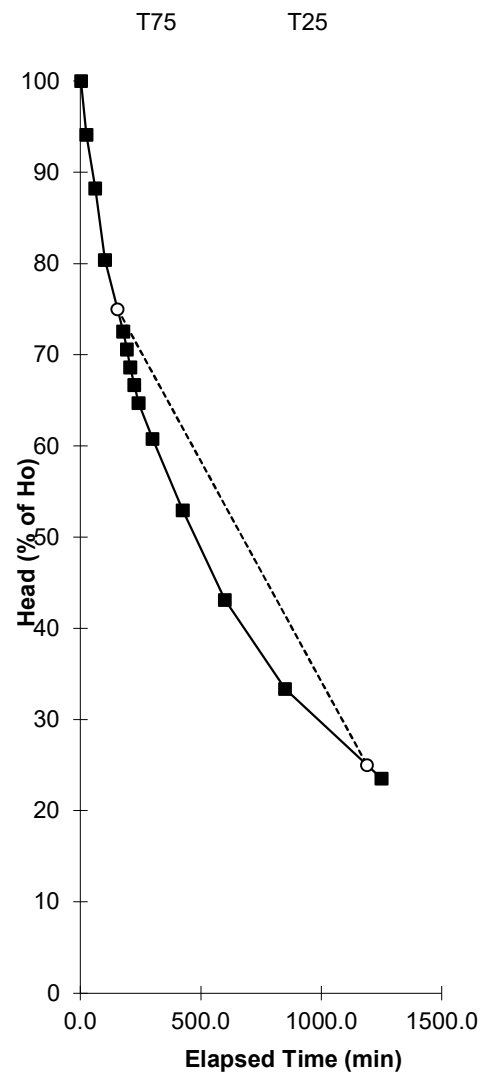
See trial Pit record

|                            |                       |
|----------------------------|-----------------------|
| <b>Depth of Pit</b>        | 1.57 m                |
| <b>Width of Pit</b>        | 0.45 m                |
| <b>Length of Pit</b>       | 1.20 m                |
| <b>Depth of Pit Soaked</b> | 0.51 m                |
| <b>ap50</b>                | 1.3815 m <sup>2</sup> |
| <b>Vp75-25</b>             | 0.1377 m <sup>3</sup> |
| <b>t75-25</b>              | 1035.5 min            |
| <b>water used</b>          | 0.2754 m <sup>3</sup> |
| <b>f</b>                   | 1.604E-06 m/sec.      |

## Field Data

| Depth to<br>Water<br>(m) | Elapsed<br>Time<br>(min) | Head of<br>Water<br>(% of Ho) | Head of<br>Water<br>(m) |
|--------------------------|--------------------------|-------------------------------|-------------------------|
| 1.06                     | 0                        | 100                           | 0.51                    |
| 1.06                     | 2.4                      | 100                           | 0.51                    |
| 1.09                     | 24.7                     | 94                            | 0.48                    |
| 1.12                     | 61.8                     | 88                            | 0.45                    |
| 1.16                     | 102.1                    | 80                            | 0.41                    |
| 1.20                     | 178.2                    | 73                            | 0.37                    |
| 1.21                     | 193.0                    | 71                            | 0.36                    |
| 1.22                     | 206.7                    | 69                            | 0.35                    |
| 1.23                     | 223.5                    | 67                            | 0.34                    |
| 1.24                     | 241.2                    | 65                            | 0.33                    |
| 1.26                     | 300.0                    | 61                            | 0.31                    |
| 1.30                     | 425.0                    | 53                            | 0.27                    |
| 1.35                     | 600.0                    | 43                            | 0.22                    |
| 1.40                     | 850.0                    | 33                            | 0.17                    |
| 1.45                     | 1250.0                   | 24                            | 0.12                    |

|        |          |                       |
|--------|----------|-----------------------|
| T75    | 154.458  | 75                    |
| T25    | 1190.000 | 25                    |
| T75-25 | 1035.542 | Derived from Best Fit |



### Comments

extrapolated after 241.2 minutes.

**SOILS LIMITED**

Newton House, Cross Road, Tadworth  
Surrey, KT20 5SR

Telephone: 01737 814 221

**Facsimile:** 01737 812 557



## Contract Number: 53405

Client Ref: **19192**

Report Date: **26-04-2021**

Client PO:

Client **Soils Limited**  
**Newton House**  
**Cross Road**  
**Tadworth**  
**Surrey**  
**KT20 5SR**

Contract Title: **19192 - Samsons Gym**  
For the attention of: **Tom Rees-Blanchard**

Date Received: **15-04-2021**

Date Completed: **26-04-2021**

| Test Description                                                                                                                                            | Qty |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| <b>Samples Received</b><br>- @ Non Accredited Test                                                                                                          | 11  |
| <b>Moisture Content of Soil</b><br>BS1377 : Part 2 : Clause 3.2 : 1990 - * UKAS                                                                             | 4   |
| <b>4 Point Liquid &amp; Plastic Limit</b><br>BS 1377:1990 - Part 2 : 4.3 & 5.3 - * UKAS                                                                     | 4   |
| <b>PSD Wet &amp; Dry Sieve method</b><br>BS 1377:1990 - Part 2 : 9.2 - * UKAS                                                                               | 4   |
| <b>Quick Undrained Triaxial Compression test - single specimen at one confining pressure (100mm or 38mm diameter)</b><br>BS 1377:1990 - Part 7 : 8 - * UKAS | 3   |
| <b>Disposal of samples for job</b>                                                                                                                          | 1   |

Notes: Observations and Interpretations are outside the UKAS Accreditation

\* - denotes test included in laboratory scope of accreditation

# - denotes test carried out by approved contractor

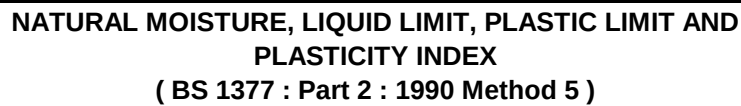
@ - denotes non accredited tests

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 Signatories:

Emma Sharp (Office Manager) - Paul Evans (Quality/Technical Manager) - Richard John (Advanced Testing Manager)

Shaun Jones (Laboratory manager) - Wayne Honey (Administrative/Quality Assistant)



|                 |                     |  |
|-----------------|---------------------|--|
| Contract Number | 53405               |  |
| Site Name       | 19192 - Samsons Gym |  |
| Date Tested     | 23/04/2021          |  |
|                 | DESCRIPTIONS        |  |

[illegible]

|                 |          |            |                                         |
|-----------------|----------|------------|-----------------------------------------|
| Operators       | Checked  | 26/04/2021 | Richard John (Advanced Testing Manager) |
| Clayton Jenkins | Approved | 26/04/2021 | Paul Evans (Quality/Technical Manager)  |





**PARTICLE SIZE DISTRIBUTION  
BS 1377 Part 2:1990  
Wet Sieve, Clause 9.2**

Contract Number **53405**

Borehole/Pit No. **WS1**

Site Name **19192 - Samsons Gym**

Sample No.

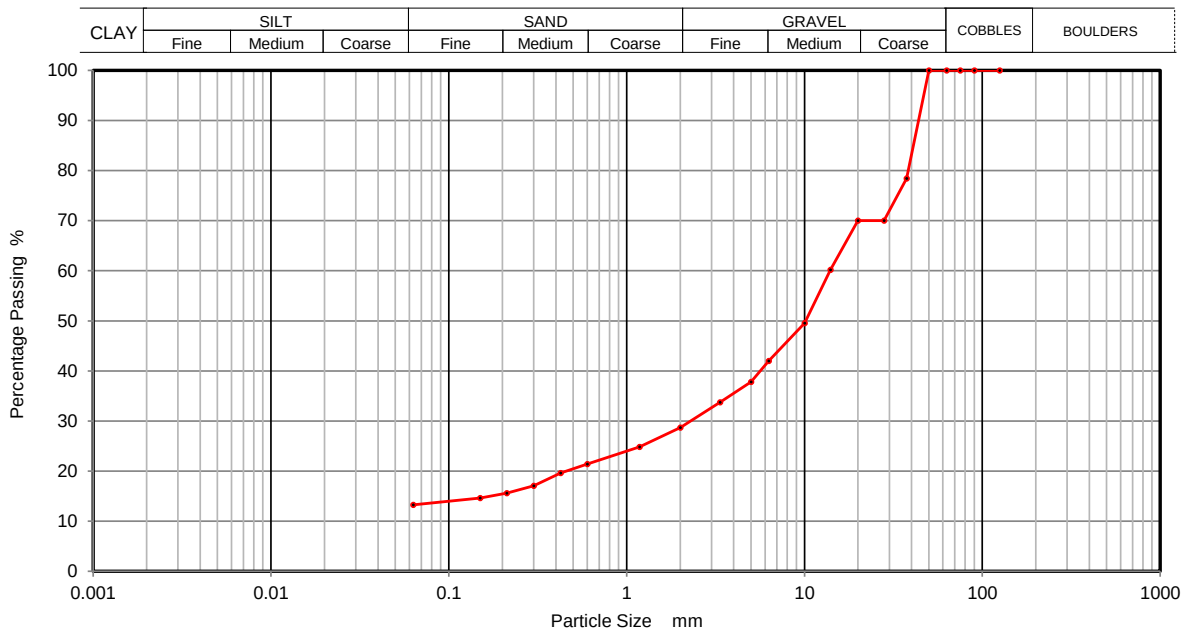
Soil Description **Dark brown clayey/silty fine to coarse sandy fine to coarse GRAVEL**

Depth Top **1.30**

Depth Base

Date Tested **23/04/2021**

Sample Type **D**



| Sieving          |           | Sedimentation    |           |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 125              | 100       |                  |           |
| 90               | 100       |                  |           |
| 75               | 100       |                  |           |
| 63               | 100       |                  |           |
| 50               | 100       |                  |           |
| 37.5             | 78        |                  |           |
| 28               | 70        |                  |           |
| 20               | 70        |                  |           |
| 14               | 60        |                  |           |
| 10               | 50        |                  |           |
| 6.3              | 42        |                  |           |
| 5                | 38        |                  |           |
| 3.35             | 34        |                  |           |
| 2                | 29        |                  |           |
| 1.18             | 25        |                  |           |
| 0.6              | 21        |                  |           |
| 0.425            | 20        |                  |           |
| 0.3              | 17        |                  |           |
| 0.212            | 16        |                  |           |
| 0.15             | 15        |                  |           |
| 0.063            | 13        |                  |           |

| Sample Proportions | % dry mass |
|--------------------|------------|
| Cobbles            | 0          |
| Gravel             | 71         |
| Sand               | 16         |
| Silt and Clay      | 13         |
|                    |            |
|                    |            |

**Remarks**

Preparation and testing in accordance with BS1377 unless noted below

|          |          |            |              |  |
|----------|----------|------------|--------------|--|
| Operator | Checked  | 25/04/2021 | Richard John |  |
| David    | Approved | 26/04/2021 | Paul Evans   |  |



2788



**PARTICLE SIZE DISTRIBUTION**  
**BS 1377 Part 2:1990**  
**Wet Sieve, Clause 9.2**

Contract Number

**53405**

Borehole/Pit No.

**WS2**

Site Name

**19192 - Samsons Gym**

Sample No.

Soil Description

Brown slightly clayey/silty fine to coarse sandy fine to coarse GRAVEL

Depth Top

**2.30**

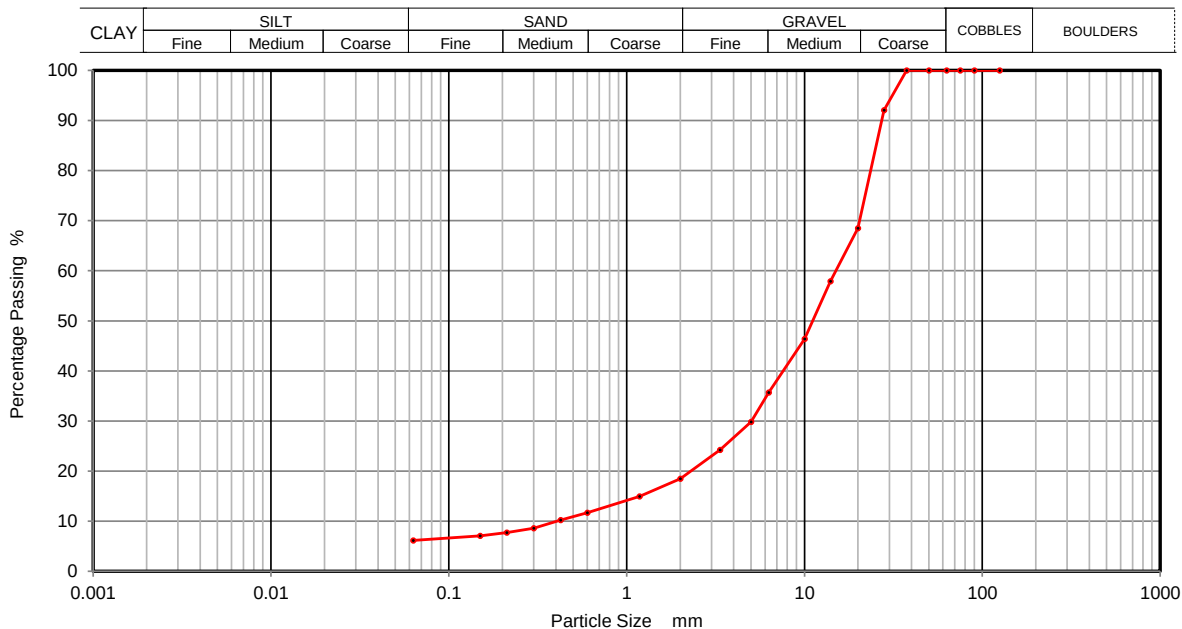
Depth Base

Date Tested

23/04/2021

Sample Type

**D**



| Sieving          |           | Sedimentation    |           |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 125              | 100       |                  |           |
| 90               | 100       |                  |           |
| 75               | 100       |                  |           |
| 63               | 100       |                  |           |
| 50               | 100       |                  |           |
| 37.5             | 100       |                  |           |
| 28               | 92        |                  |           |
| 20               | 68        |                  |           |
| 14               | 58        |                  |           |
| 10               | 46        |                  |           |
| 6.3              | 36        |                  |           |
| 5                | 30        |                  |           |
| 3.35             | 24        |                  |           |
| 2                | 18        |                  |           |
| 1.18             | 15        |                  |           |
| 0.6              | 12        |                  |           |
| 0.425            | 10        |                  |           |
| 0.3              | 9         |                  |           |
| 0.212            | 8         |                  |           |
| 0.15             | 7         |                  |           |
| 0.063            | 6         |                  |           |

| Sample Proportions | % dry mass |
|--------------------|------------|
| Cobbles            | 0          |
| Gravel             | 82         |
| Sand               | 12         |
| Silt and Clay      | 6          |
|                    |            |
|                    |            |

**Remarks**

Preparation and testing in accordance with BS1377 unless noted below

|          |          |            |              |  |
|----------|----------|------------|--------------|--|
| Operator | Checked  | 25/04/2021 | Richard John |  |
| David    | Approved | 26/04/2021 | Paul Evans   |  |



2788



**PARTICLE SIZE DISTRIBUTION**  
**BS 1377 Part 2:1990**  
**Wet Sieve, Clause 9.2**

Contract Number

**53405**

Borehole/Pit No.

**WS4**

Site Name

**19192 - Samsons Gym**

Sample No.

Soil Description

Dark brown slightly clayey/silty fine to coarse sandy fine to coarse GRAVEL

Depth Top

**1.70**

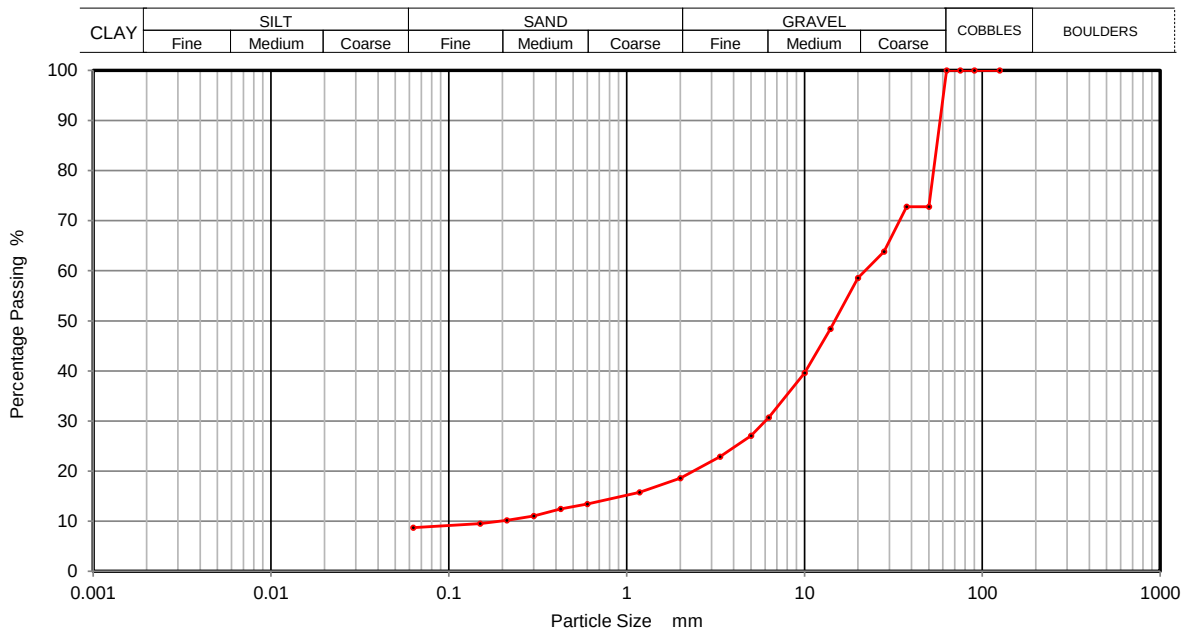
Depth Base

Date Tested

**23/04/2021**

Sample Type

**D**



| Sieving          |           | Sedimentation    |           |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 125              | 100       |                  |           |
| 90               | 100       |                  |           |
| 75               | 100       |                  |           |
| 63               | 100       |                  |           |
| 50               | 73        |                  |           |
| 37.5             | 73        |                  |           |
| 28               | 64        |                  |           |
| 20               | 59        |                  |           |
| 14               | 48        |                  |           |
| 10               | 40        |                  |           |
| 6.3              | 31        |                  |           |
| 5                | 27        |                  |           |
| 3.35             | 23        |                  |           |
| 2                | 19        |                  |           |
| 1.18             | 16        |                  |           |
| 0.6              | 13        |                  |           |
| 0.425            | 12        |                  |           |
| 0.3              | 11        |                  |           |
| 0.212            | 10        |                  |           |
| 0.15             | 10        |                  |           |
| 0.063            | 9         |                  |           |

| Sample Proportions | % dry mass |
|--------------------|------------|
| Cobbles            | 0          |
| Gravel             | 81         |
| Sand               | 10         |
| Silt and Clay      | 9          |
|                    |            |
|                    |            |

**Remarks**

Preparation and testing in accordance with BS1377 unless noted below

|          |          |            |              |  |
|----------|----------|------------|--------------|--|
| Operator | Checked  | 25/04/2021 | Richard John |  |
| David    | Approved | 26/04/2021 | Paul Evans   |  |





**PARTICLE SIZE DISTRIBUTION**  
**BS 1377 Part 2:1990**  
**Wet Sieve, Clause 9.2**

Contract Number

**53405**

Borehole/Pit No.

**BH1**

Site Name

**19192 - Samsons Gym**

Sample No.

Soil Description

Light brown slightly clayey/silty fine to coarse sandy fine to coarse GRAVEL

Depth Top

**3.00**

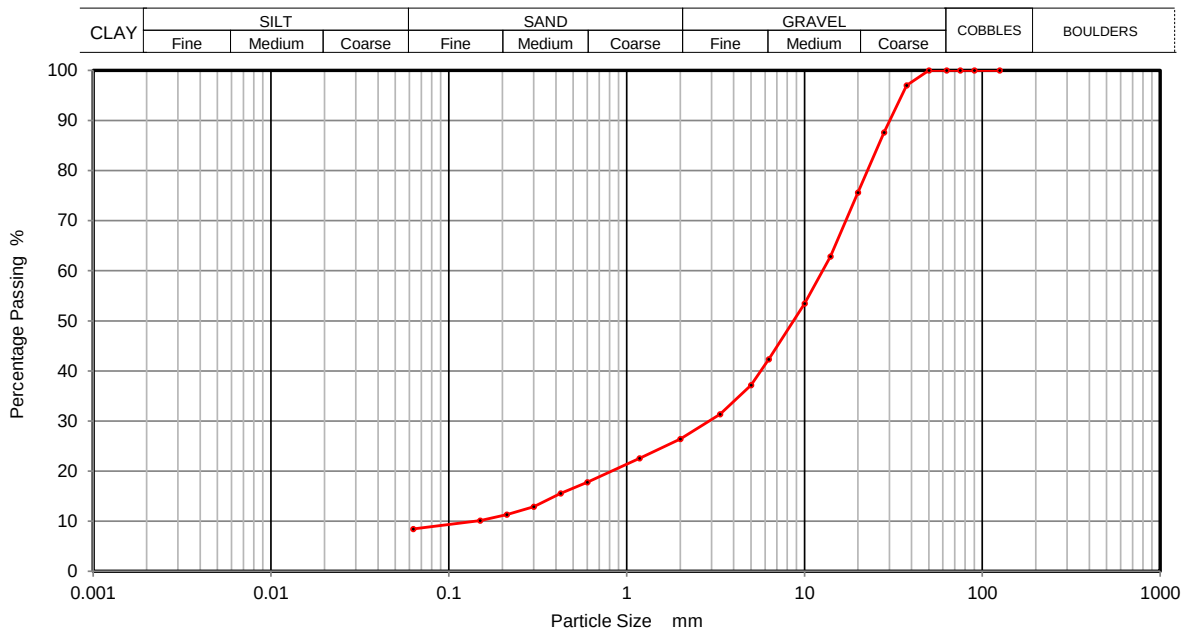
Depth Base

Date Tested

23/04/2021

Sample Type

**B**



| Sieving          |           | Sedimentation    |           |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 125              | 100       |                  |           |
| 90               | 100       |                  |           |
| 75               | 100       |                  |           |
| 63               | 100       |                  |           |
| 50               | 100       |                  |           |
| 37.5             | 97        |                  |           |
| 28               | 88        |                  |           |
| 20               | 76        |                  |           |
| 14               | 63        |                  |           |
| 10               | 53        |                  |           |
| 6.3              | 42        |                  |           |
| 5                | 37        |                  |           |
| 3.35             | 31        |                  |           |
| 2                | 26        |                  |           |
| 1.18             | 23        |                  |           |
| 0.6              | 18        |                  |           |
| 0.425            | 16        |                  |           |
| 0.3              | 13        |                  |           |
| 0.212            | 11        |                  |           |
| 0.15             | 10        |                  |           |
| 0.063            | 8         |                  |           |

| Sample Proportions | % dry mass |
|--------------------|------------|
| Cobbles            | 0          |
| Gravel             | 74         |
| Sand               | 18         |
| Silt and Clay      | 8          |
|                    |            |
|                    |            |

**Remarks**

Preparation and testing in accordance with BS1377 unless noted below

|          |          |            |              |  |
|----------|----------|------------|--------------|--|
| Operator | Checked  | 25/04/2021 | Richard John |  |
| David    | Approved | 26/04/2021 | Paul Evans   |  |





**Single Stage Unconsolidated-Undrained Triaxial  
Test  
BS 1377 : 1990 Part 7 : 8**

Contract Number 53405

Borehole/Pit No. BH1

Site Name 19192 - Samsons Gym

Sample No.

Soil Description Grey sandy silty CLAY

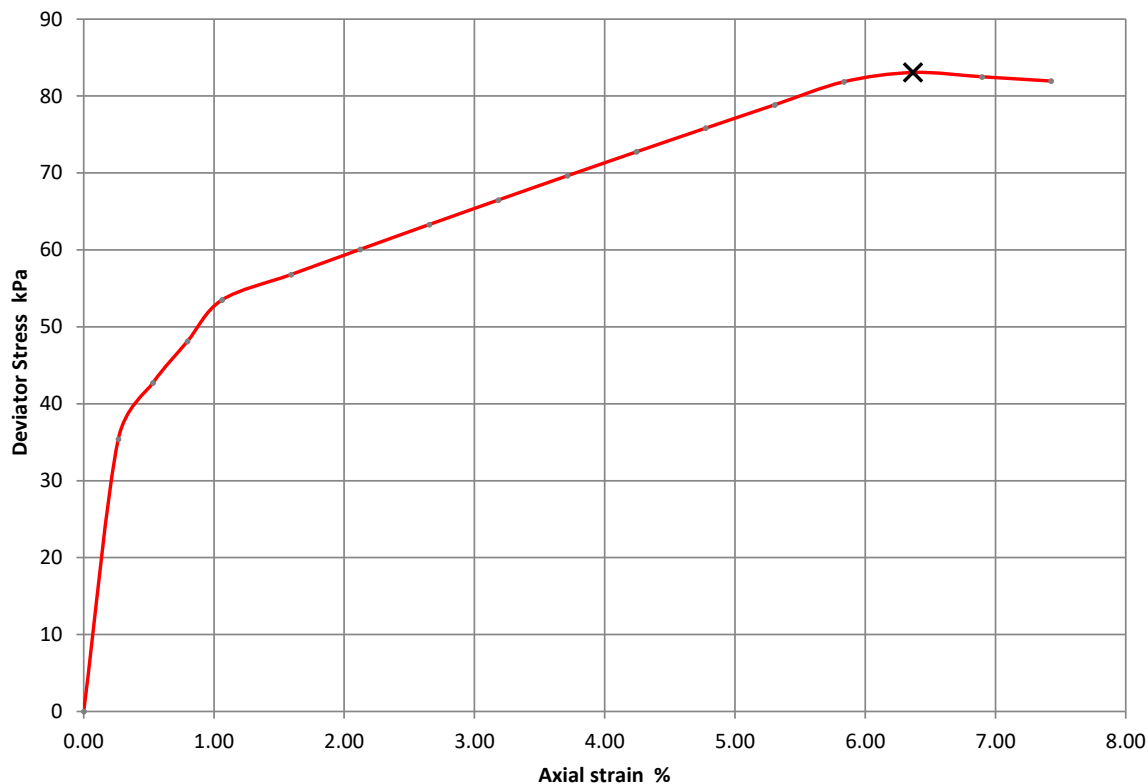
Depth Top (m) 9.50

Depth Base (m) 9.95

Date Tested 22/04/2021

Sample Type U

Technician Daniel



|                                   |              |
|-----------------------------------|--------------|
| Moisture Content (%)              | 24           |
| Bulk Density (Mg/m <sup>3</sup> ) | 1.94         |
| Dry Density (Mg/m <sup>3</sup> )  | 1.57         |
| Specimen Length (mm)              | 188.5        |
| Specimen Diameter (mm)            | 105.1        |
| Cell Pressure (kPa)               | 170          |
| Deviator Stress (kPa)             | 83           |
| Undrained Shear Strength (kPa)    | 42           |
| Failure Strain (%)                | 6            |
| Mode Of Failure                   | Compound     |
| Membrane Used/Thickness           | Rubber/0.3mm |
| Rate of Strain (%/min)            | 1.59         |

Specimen Post Test



Sample Split



|          |            |              |  |
|----------|------------|--------------|--|
| Checked  | 25/04/2021 | Richard John |  |
| Approved | 26/04/2021 | Paul Evans   |  |





**Single Stage Unconsolidated-Undrained Triaxial  
Test  
BS 1377 : 1990 Part 7 : 8**

Contract Number 53405

Borehole/Pit No. BH1

Site Name 19192 - Samsons Gym

Sample No.

Soil Description Grey sandy silty CLAY

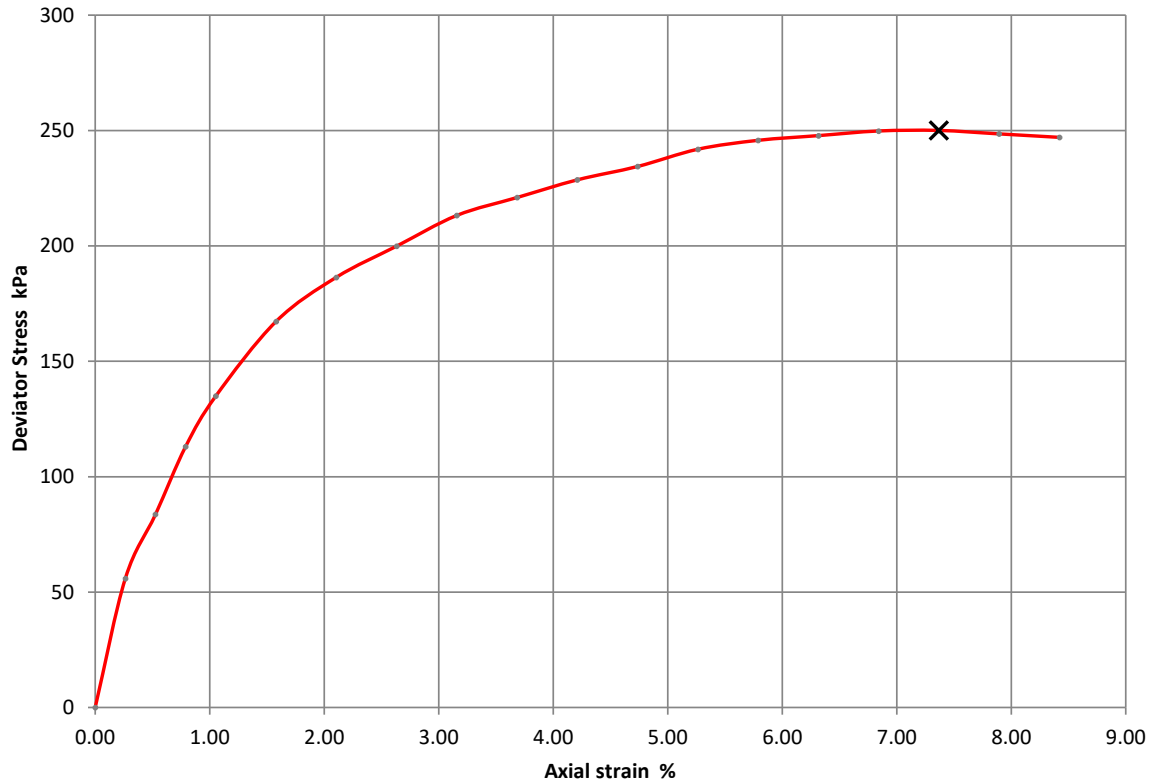
Depth Top (m) 12.50

Depth Base (m) 12.85

Date Tested 22/04/2021

Sample Type U

Technician Daniel



|                                   |              |
|-----------------------------------|--------------|
| Moisture Content (%)              | 26           |
| Bulk Density (Mg/m <sup>3</sup> ) | 1.92         |
| Dry Density (Mg/m <sup>3</sup> )  | 1.53         |
| Specimen Length (mm)              | 190          |
| Specimen Diameter (mm)            | 105.1        |
| Cell Pressure (kPa)               | 225          |
| Deviator Stress (kPa)             | 250          |
| Undrained Shear Strength (kPa)    | 125          |
| Failure Strain (%)                | 7            |
| Mode Of Failure                   | Compound     |
| Membrane Used/Thickness           | Rubber/0.3mm |
| Rate of Strain (%/min)            | 1.58         |

Specimen Post Test



Sample Split



|          |            |              |  |
|----------|------------|--------------|--|
| Checked  | 25/04/2021 | Richard John |  |
| Approved | 26/04/2021 | Paul Evans   |  |





**Single Stage Unconsolidated-Undrained Triaxial  
Test  
BS 1377 : 1990 Part 7 : 8**

Contract Number 53405

Borehole/Pit No. BH1

Site Name 19192 - Samsons Gym

Sample No.

Soil Description Grey sandy silty CLAY

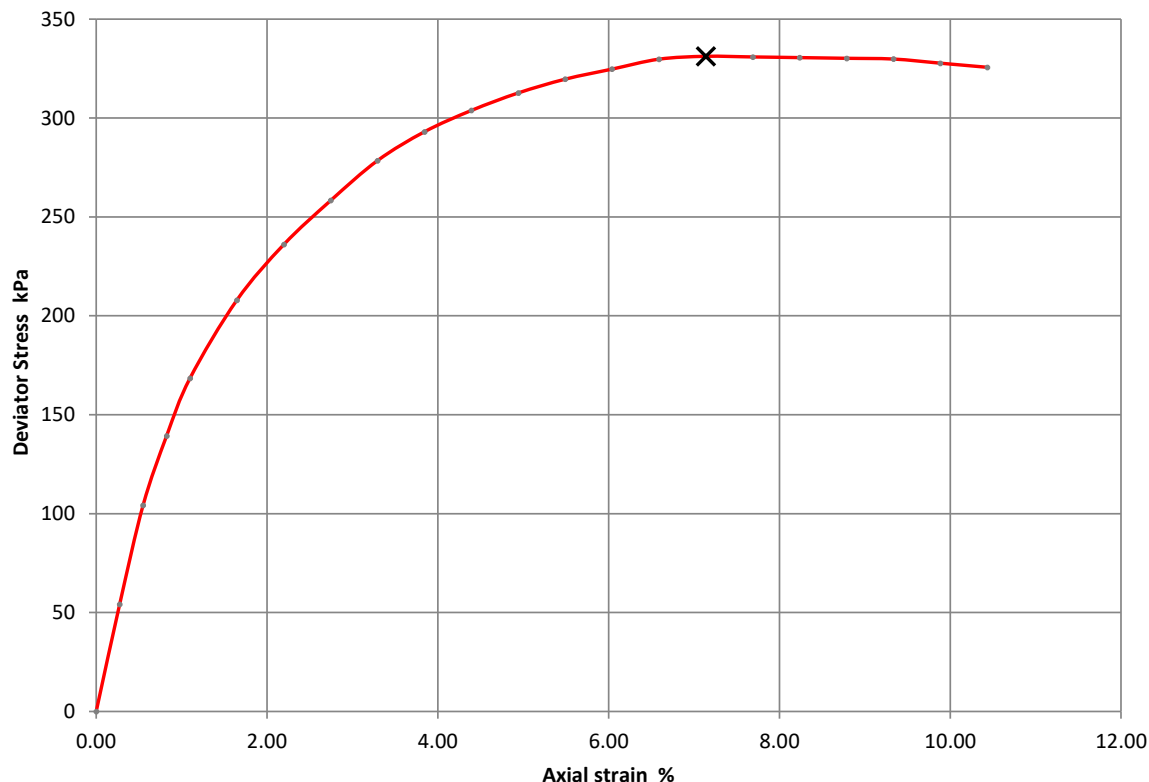
Depth Top (m) 14.00

Depth Base (m) 14.35

Date Tested 22/04/2021

Sample Type U

Technician Daniel



|                                   |              |
|-----------------------------------|--------------|
| Moisture Content (%)              | 23           |
| Bulk Density (Mg/m <sup>3</sup> ) | 1.94         |
| Dry Density (Mg/m <sup>3</sup> )  | 1.58         |
| Specimen Length (mm)              | 182.1        |
| Specimen Diameter (mm)            | 105          |
| Cell Pressure (kPa)               | 250          |
| Deviator Stress (kPa)             | 331          |
| Undrained Shear Strength (kPa)    | 166          |
| Failure Strain (%)                | 7            |
| Mode Of Failure                   | Compound     |
| Membrane Used/Thickness           | Rubber/0.3mm |
| Rate of Strain (%/min)            | 1.65         |

Specimen Post Test



Sample Split



|          |            |              |  |
|----------|------------|--------------|--|
| Checked  | 25/04/2021 | Richard John |  |
| Approved | 26/04/2021 | Paul Evans   |  |

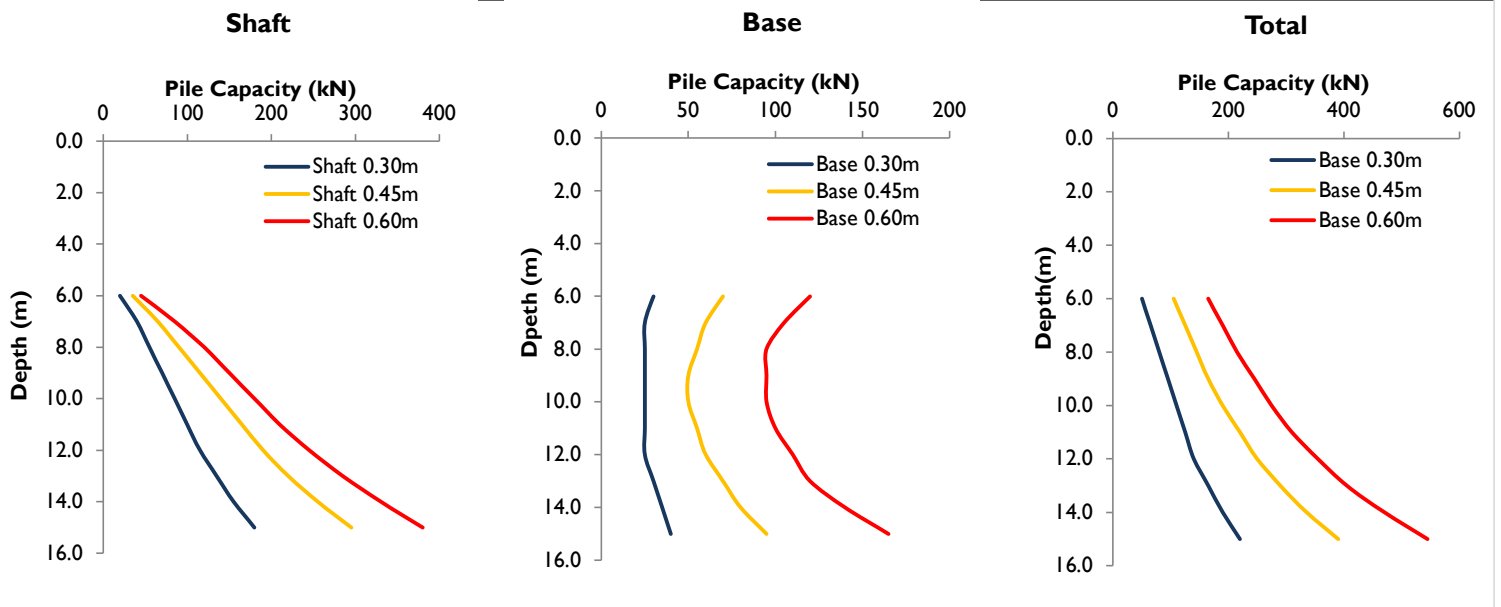


## **Appendix D    Foundation Design**

### **Appendix D.1   Preliminary Pile Design**

**Preliminary Pile Working Loads**  
**Single Vertically Loaded Pile (kN)**

|                |               |                            |             |                          |           |              |             |
|----------------|---------------|----------------------------|-------------|--------------------------|-----------|--------------|-------------|
| <b>Name:</b>   | <b>TRB</b>    | <b>N<sub>C</sub> value</b> | <b>9</b>    | <b>Pile Start Depth:</b> | <b>5</b>  | <b>FOS</b>   |             |
| <b>Job No:</b> | <b>19192</b>  | <b>α value:</b>            | <b>0.45</b> | <b>Pile Final Depth:</b> | <b>15</b> | <b>Shaft</b> | <b>Base</b> |
| <b>Date:</b>   | <b>1.5.21</b> |                            |             | <b>Pile Increment:</b>   | <b>1</b>  | <b>3</b>     | <b>3</b>    |



| <b>Pile Diameter (m):</b> |              |             |              |              |             |              |              |             |              |
|---------------------------|--------------|-------------|--------------|--------------|-------------|--------------|--------------|-------------|--------------|
| <b>0.30</b>               |              |             | <b>0.45</b>  |              |             | <b>0.60</b>  |              |             |              |
| <b>Pile Depths</b>        | <b>Shaft</b> | <b>Base</b> | <b>Total</b> | <b>Shaft</b> | <b>Base</b> | <b>Total</b> | <b>Shaft</b> | <b>Base</b> | <b>Total</b> |
| <b>(m bgl)</b>            |              |             |              |              |             |              |              |             |              |
| 5.0                       |              |             |              |              |             |              |              |             |              |
| 6.0                       | 20           | 30          | 50           | 35           | 70          | 105          | 45           | 120         | 165          |
| 7.0                       | 40           | 25          | 65           | 65           | 60          | 125          | 85           | 105         | 190          |
| 8.0                       | 55           | 25          | 80           | 90           | 55          | 145          | 120          | 95          | 215          |
| 9.0                       | 70           | 25          | 95           | 115          | 50          | 165          | 150          | 95          | 245          |
| 10.0                      | 85           | 25          | 110          | 140          | 50          | 190          | 180          | 95          | 275          |
| 11.0                      | 100          | 25          | 125          | 165          | 55          | 220          | 210          | 100         | 310          |
| 12.0                      | 115          | 25          | 140          | 190          | 60          | 250          | 245          | 110         | 355          |
| 13.0                      | 135          | 30          | 165          | 220          | 70          | 290          | 285          | 120         | 405          |
| 14.0                      | 155          | 35          | 190          | 255          | 80          | 335          | 330          | 140         | 470          |
| 15.0                      | 180          | 40          | 220          | 295          | 95          | 390          | 380          | 165         | 545          |

## **Appendix E    Chemical Laboratory Analyses**

### **Appendix E.I    Conceptual Site Model**

Table E.I.I CSM Revised Pre-Chemical Analyses

| Source                                                           | Potential Contaminant                                                       | Exposure Pathway                             | Receptor                      | Initial Assessment from Desk Study and Main Investigation Report Information |             |          | Comments                                                                                                                                                                                            | Proposed Investigation                                                        |  |  |
|------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------|-------------------------------|------------------------------------------------------------------------------|-------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|--|--|
|                                                                  |                                                                             |                                              |                               | Severity                                                                     | Probability | Risk     |                                                                                                                                                                                                     |                                                                               |  |  |
| Made Ground/Car park<br>On-site historic and current site usage. | Metals, Semi-metals and non-metals, PAHs, TPHs, MTBE and BTEX, Asbestos, pH | Inhalation of dust                           | Site Workers/Site Maintenance | Mild                                                                         | Low         | Low      | The site is located on Unproductive strata of the London Clay Formation, rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow. | Chemical testing prior to undertaking a generic quantitative risk assessment. |  |  |
|                                                                  |                                                                             |                                              | End Users                     | Mild                                                                         | Unlikely    | Very low |                                                                                                                                                                                                     |                                                                               |  |  |
|                                                                  |                                                                             |                                              | Off-site Users                | Mild                                                                         | Unlikely    | Very low |                                                                                                                                                                                                     |                                                                               |  |  |
|                                                                  | PAHs, TPHs, MTBE and BTEX                                                   | Inhalation of vapour/gases (including Radon) | Site Workers/Site Maintenance | Mild                                                                         | Low         | Low      | Superficial River Terrace Deposits classified as Secondary A Aquifer which support shallow groundwater flow.                                                                                        | There was no groundwater observed in both investigations.                     |  |  |
|                                                                  |                                                                             |                                              | End Users                     | Mild                                                                         | Unlikely    | Very low |                                                                                                                                                                                                     |                                                                               |  |  |
|                                                                  |                                                                             |                                              | Off-site Users                | Mild                                                                         | Unlikely    | Very low |                                                                                                                                                                                                     |                                                                               |  |  |
|                                                                  | Metals, Semi-metals and non-metals, PAHs, TPHs, MTBE and BTEX, Asbestos, pH | Ingestion and absorption via direct contact  | Site Workers/Site Maintenance | Mild                                                                         | Low         | Low      |                                                                                                                                                                                                     |                                                                               |  |  |
|                                                                  |                                                                             |                                              | End Users                     | Mild                                                                         | Unlikely    | Very low |                                                                                                                                                                                                     |                                                                               |  |  |
|                                                                  | Metals, Semi-metals and non-metals, PAHs, TPHs, MTBE and BTEX, Asbestos, pH | Migration via surface runoff                 | Surface Water                 | Mild                                                                         | Low         | Low      |                                                                                                                                                                                                     |                                                                               |  |  |
|                                                                  |                                                                             | Migration in solution via groundwater        | Surface Water                 | Mild                                                                         | Low         | Low      |                                                                                                                                                                                                     |                                                                               |  |  |
|                                                                  |                                                                             |                                              | Shallow Aquifer               | Mild                                                                         | Low         | Low      |                                                                                                                                                                                                     |                                                                               |  |  |
|                                                                  |                                                                             | Direct contact with construction material    | Buried Structures             | Mild                                                                         | Low         | Low      |                                                                                                                                                                                                     |                                                                               |  |  |
|                                                                  |                                                                             |                                              | Buried Services               |                                                                              |             |          |                                                                                                                                                                                                     |                                                                               |  |  |

Table E.1.2 CSM Revised Post-Chemical Analyses

| Source | Potential Contaminant | Exposure Pathway | Receptor | Initial Assessment from Desk Study and Main Investigation Report Information |             |      | Comments | Proposed Investigation                              |
|--------|-----------------------|------------------|----------|------------------------------------------------------------------------------|-------------|------|----------|-----------------------------------------------------|
|        |                       |                  |          | Severity                                                                     | Probability | Risk |          |                                                     |
| None   |                       |                  |          |                                                                              |             |      |          | None required, subject to local authority approval. |

## **Appendix E.2 Chemical Laboratory Results**



Tom Rees-Blanchard  
Soils Ltd  
Thomas Telford House - Unit 11  
Sun Valley Business Park  
Winnall Close  
Winchester  
SO23 0LB

**DETS Ltd**  
Unit 1  
Rose Lane Industrial Estate  
Rose Lane  
Lenham Heath  
Kent  
ME17 2JN  
t: 01622 850410

## **DETS Report No: 21-04413**

**Site Reference:** Samson's Gym

**Project / Job Ref:** 19192

**Order No:** 19192

**Sample Receipt Date:** 07/04/2021

**Sample Scheduled Date:** 07/04/2021

**Report Issue Number:** 1

**Reporting Date:** 13/04/2021

**Authorised by:**

Dave Ashworth  
Technical Manager

Dates of laboratory activities for each tested analyte are available upon request.

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.



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| Soil Analysis Certificate           |                        |               |               |               |               |               |
|-------------------------------------|------------------------|---------------|---------------|---------------|---------------|---------------|
| <b>DETS Report No: 21-04413</b>     | <b>Date Sampled</b>    | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| <b>Soils Ltd</b>                    | <b>Time Sampled</b>    | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| <b>Site Reference: Samson's Gym</b> | <b>TP / BH No</b>      | WS1           | WS1           | WS1           | WS2           | WS2           |
| <b>Project / Job Ref: 19192</b>     | <b>Additional Refs</b> | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| <b>Order No: 19192</b>              | <b>Depth (m)</b>       | 0.20          | 0.40          | 0.80          | 0.40          | 3.30          |
| <b>Reporting Date: 13/04/2021</b>   | <b>DETS Sample No</b>  | 535985        | 535986        | 535987        | 535988        | 535989        |

| Determinand                    | Unit     | RL    | Accreditation |              |              |              |              |              |
|--------------------------------|----------|-------|---------------|--------------|--------------|--------------|--------------|--------------|
| Asbestos Screen <sup>(S)</sup> | N/a      | N/a   | ISO17025      | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected |
| pH                             | pH Units | N/a   | MCERTS        | 8.6          | 8.1          | 8.0          | 7.9          | 8.1          |
| Organic Matter                 | %        | < 0.1 | MCERTS        | 1            | 1.3          | < 0.1        | 0.8          | 0.1          |
| Arsenic (As)                   | mg/kg    | < 2   | MCERTS        | 2            | 6            | 5            | 5            | < 2          |
| W/S Boron                      | mg/kg    | < 1   | NONE          | < 1          | < 1          | < 1          | < 1          | < 1          |
| Cadmium (Cd)                   | mg/kg    | < 0.2 | NONE          | < 0.2        | < 0.2        | < 0.2        | < 0.2        | < 0.2        |
| Chromium (Cr)                  | mg/kg    | < 2   | MCERTS        | 5            | 13           | 21           | 19           | 4            |
| Chromium (hexavalent)          | mg/kg    | < 2   | NONE          | < 2          | < 2          | < 2          | < 2          | < 2          |
| Copper (Cu)                    | mg/kg    | < 4   | MCERTS        | 4            | 12           | 9            | 7            | < 4          |
| Lead (Pb)                      | mg/kg    | < 3   | MCERTS        | 43           | 33           | 11           | 11           | < 3          |
| Mercury (Hg)                   | mg/kg    | < 1   | MCERTS        | < 1          | < 1          | < 1          | < 1          | < 1          |
| Nickel (Ni)                    | mg/kg    | < 3   | MCERTS        | < 3          | 10           | 16           | 14           | < 3          |
| Selenium (Se)                  | mg/kg    | < 2   | MCERTS        | < 3          | < 3          | < 3          | < 3          | < 3          |
| Vanadium (V)                   | mg/kg    | < 1   | MCERTS        | 4            | 19           | 29           | 27           | 4            |
| Zinc (Zn)                      | mg/kg    | < 3   | MCERTS        | 43           | 41           | 38           | 40           | 5            |
| Total Phenols (monohydric)     | mg/kg    | < 2   | NONE          | < 2          | < 2          | < 2          | < 2          | < 2          |

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion  
 Subcontracted analysis (S)



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| Soil Analysis Certificate           |                        |               |               |  |  |  |
|-------------------------------------|------------------------|---------------|---------------|--|--|--|
| <b>DETS Report No: 21-04413</b>     | <b>Date Sampled</b>    | None Supplied | None Supplied |  |  |  |
| <b>Soils Ltd</b>                    | <b>Time Sampled</b>    | None Supplied | None Supplied |  |  |  |
| <b>Site Reference: Samson's Gym</b> | <b>TP / BH No</b>      | WS4           | WS4           |  |  |  |
| <b>Project / Job Ref: 19192</b>     | <b>Additional Refs</b> | None Supplied | None Supplied |  |  |  |
| <b>Order No: 19192</b>              | <b>Depth (m)</b>       | 0.70          | 1.20          |  |  |  |
| <b>Reporting Date: 13/04/2021</b>   | <b>DETS Sample No</b>  | 535990        | 535991        |  |  |  |

| Determinand                    | Unit     | RL    | Accreditation |              |              |  |  |  |
|--------------------------------|----------|-------|---------------|--------------|--------------|--|--|--|
| Asbestos Screen <sup>(S)</sup> | N/a      | N/a   | ISO17025      | Not Detected | Not Detected |  |  |  |
| pH                             | pH Units | N/a   | MCERTS        | 8.1          | 8.0          |  |  |  |
| Organic Matter                 | %        | < 0.1 | MCERTS        | 0.2          | 0.6          |  |  |  |
| Arsenic (As)                   | mg/kg    | < 2   | MCERTS        | 5            | 7            |  |  |  |
| W/S Boron                      | mg/kg    | < 1   | NONE          | < 1          | < 1          |  |  |  |
| Cadmium (Cd)                   | mg/kg    | < 0.2 | NONE          | < 0.2        | < 0.2        |  |  |  |
| Chromium (Cr)                  | mg/kg    | < 2   | MCERTS        | 21           | 23           |  |  |  |
| Chromium (hexavalent)          | mg/kg    | < 2   | NONE          | < 2          | < 2          |  |  |  |
| Copper (Cu)                    | mg/kg    | < 4   | MCERTS        | 9            | 11           |  |  |  |
| Lead (Pb)                      | mg/kg    | < 3   | MCERTS        | 10           | 12           |  |  |  |
| Mercury (Hg)                   | mg/kg    | < 1   | MCERTS        | < 1          | < 1          |  |  |  |
| Nickel (Ni)                    | mg/kg    | < 3   | MCERTS        | 17           | 26           |  |  |  |
| Selenium (Se)                  | mg/kg    | < 2   | MCERTS        | < 3          | < 3          |  |  |  |
| Vanadium (V)                   | mg/kg    | < 1   | MCERTS        | 28           | 31           |  |  |  |
| Zinc (Zn)                      | mg/kg    | < 3   | MCERTS        | 38           | 45           |  |  |  |
| Total Phenols (monohydric)     | mg/kg    | < 2   | NONE          | < 2          | < 2          |  |  |  |

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion  
 Subcontracted analysis (S)



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| Soil Analysis Certificate - Speciated PAHs |                        |               |               |               |               |               |
|--------------------------------------------|------------------------|---------------|---------------|---------------|---------------|---------------|
| <b>DETS Report No: 21-04413</b>            | <b>Date Sampled</b>    | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| <b>Soils Ltd</b>                           | <b>Time Sampled</b>    | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| <b>Site Reference: Samson's Gym</b>        | <b>TP / BH No</b>      | WS1           | WS1           | WS1           | WS2           | WS2           |
| <b>Project / Job Ref: 19192</b>            | <b>Additional Refs</b> | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| <b>Order No: 19192</b>                     | <b>Depth (m)</b>       | 0.20          | 0.40          | 0.80          | 0.40          | 3.30          |
| <b>Reporting Date: 13/04/2021</b>          | <b>DETS Sample No</b>  | 535985        | 535986        | 535987        | 535988        | 535989        |

| Determinand            | Unit  | RL    | Accreditation |       |       |       |       |       |
|------------------------|-------|-------|---------------|-------|-------|-------|-------|-------|
| Naphthalene            | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Acenaphthylene         | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Acenaphthene           | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Fluorene               | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Phenanthrene           | mg/kg | < 0.1 | MCERTS        | < 0.1 | 0.12  | < 0.1 | < 0.1 | < 0.1 |
| Anthracene             | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Fluoranthene           | mg/kg | < 0.1 | MCERTS        | < 0.1 | 0.32  | < 0.1 | < 0.1 | < 0.1 |
| Pyrene                 | mg/kg | < 0.1 | MCERTS        | < 0.1 | 0.29  | < 0.1 | < 0.1 | < 0.1 |
| Benzo(a)anthracene     | mg/kg | < 0.1 | MCERTS        | < 0.1 | 0.12  | < 0.1 | < 0.1 | < 0.1 |
| Chrysene               | mg/kg | < 0.1 | MCERTS        | < 0.1 | 0.18  | < 0.1 | < 0.1 | < 0.1 |
| Benzo(b)fluoranthene   | mg/kg | < 0.1 | MCERTS        | < 0.1 | 0.19  | < 0.1 | < 0.1 | < 0.1 |
| Benzo(k)fluoranthene   | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzo(a)pyrene         | mg/kg | < 0.1 | MCERTS        | < 0.1 | 0.14  | < 0.1 | < 0.1 | < 0.1 |
| Indeno(1,2,3-cd)pyrene | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Dibenz(a,h)anthracene  | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzo(ghi)perylene     | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Total EPA-16 PAHs      | mg/kg | < 1.6 | MCERTS        | < 1.6 | < 1.6 | < 1.6 | < 1.6 | < 1.6 |



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| Soil Analysis Certificate - Speciated PAHs |                 |               |               |  |  |  |
|--------------------------------------------|-----------------|---------------|---------------|--|--|--|
| DETS Report No: 21-04413                   | Date Sampled    | None Supplied | None Supplied |  |  |  |
| Soils Ltd                                  | Time Sampled    | None Supplied | None Supplied |  |  |  |
| Site Reference: Samson's Gym               | TP / BH No      | WS4           | WS4           |  |  |  |
| Project / Job Ref: 19192                   | Additional Refs | None Supplied | None Supplied |  |  |  |
| Order No: 19192                            | Depth (m)       | 0.70          | 1.20          |  |  |  |
| Reporting Date: 13/04/2021                 | DETS Sample No  | 535990        | 535991        |  |  |  |

| Determinand            | Unit  | RL    | Accreditation |       |       |  |  |
|------------------------|-------|-------|---------------|-------|-------|--|--|
| Naphthalene            | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Acenaphthylene         | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Acenaphthene           | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Fluorene               | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Phenanthrene           | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Anthracene             | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Fluoranthene           | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Pyrene                 | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Benzo(a)anthracene     | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Chrysene               | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Benzo(b)fluoranthene   | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Benzo(k)fluoranthene   | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Benzo(a)pyrene         | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Indeno(1,2,3-cd)pyrene | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Dibenz(a,h)anthracene  | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Benzo(ghi)perylene     | mg/kg | < 0.1 | MCERTS        | < 0.1 | < 0.1 |  |  |
| Total EPA-16 PAHs      | mg/kg | < 1.6 | MCERTS        | < 1.6 | < 1.6 |  |  |



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| Soil Analysis Certificate - EPH Texas Banded |                        |               |               |               |               |               |
|----------------------------------------------|------------------------|---------------|---------------|---------------|---------------|---------------|
| <b>DETS Report No: 21-04413</b>              | <b>Date Sampled</b>    | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| <b>Soils Ltd</b>                             | <b>Time Sampled</b>    | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| <b>Site Reference: Samson's Gym</b>          | <b>TP / BH No</b>      | WS1           | WS1           | WS1           | WS2           | WS2           |
| <b>Project / Job Ref: 19192</b>              | <b>Additional Refs</b> | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| <b>Order No: 19192</b>                       | <b>Depth (m)</b>       | 0.20          | 0.40          | 0.80          | 0.40          | 3.30          |
| <b>Reporting Date: 13/04/2021</b>            | <b>DETS Sample No</b>  | 535985        | 535986        | 535987        | 535988        | 535989        |

| Determinand            | Unit  | RL     | Accreditation |        |        |        |        |        |
|------------------------|-------|--------|---------------|--------|--------|--------|--------|--------|
| EPH Texas (C6 - C8)    | mg/kg | < 0.05 | NONE          | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| EPH Texas (>C8 - C10)  | mg/kg | < 1    | MCERTS        | < 1    | < 1    | < 1    | < 1    | 2      |
| EPH Texas (>C10 - C12) | mg/kg | < 1    | MCERTS        | < 1    | < 1    | < 1    | < 1    | 5      |
| EPH Texas (>C12 - C16) | mg/kg | < 1    | MCERTS        | < 1    | < 1    | < 1    | < 1    | < 1    |
| EPH Texas (>C16 - C21) | mg/kg | < 1    | MCERTS        | < 1    | < 1    | < 1    | < 1    | 6      |
| EPH Texas (>C21 - C40) | mg/kg | < 6    | MCERTS        | 12     | < 6    | < 6    | < 6    | 16     |
| EPH Texas (C6 - C40)   | mg/kg | < 6    | NONE          | 12     | < 6    | < 6    | < 6    | 29     |



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| Soil Analysis Certificate - EPH Texas Banded |                 |               |               |  |  |  |
|----------------------------------------------|-----------------|---------------|---------------|--|--|--|
| DETS Report No: 21-04413                     | Date Sampled    | None Supplied | None Supplied |  |  |  |
| Soils Ltd                                    | Time Sampled    | None Supplied | None Supplied |  |  |  |
| Site Reference: Samson's Gym                 | TP / BH No      | WS4           | WS4           |  |  |  |
| Project / Job Ref: 19192                     | Additional Refs | None Supplied | None Supplied |  |  |  |
| Order No: 19192                              | Depth (m)       | 0.70          | 1.20          |  |  |  |
| Reporting Date: 13/04/2021                   | DETS Sample No  | 535990        | 535991        |  |  |  |

| Determinand            | Unit  | RL     | Accreditation |        |        |  |  |
|------------------------|-------|--------|---------------|--------|--------|--|--|
| EPH Texas (C6 - C8)    | mg/kg | < 0.05 | NONE          | < 0.05 | < 0.05 |  |  |
| EPH Texas (>C8 - C10)  | mg/kg | < 1    | MCERTS        | < 1    | < 1    |  |  |
| EPH Texas (>C10 - C12) | mg/kg | < 1    | MCERTS        | < 1    | < 1    |  |  |
| EPH Texas (>C12 - C16) | mg/kg | < 1    | MCERTS        | < 1    | < 1    |  |  |
| EPH Texas (>C16 - C21) | mg/kg | < 1    | MCERTS        | < 1    | < 1    |  |  |
| EPH Texas (>C21 - C40) | mg/kg | < 6    | MCERTS        | < 6    | < 6    |  |  |
| EPH Texas (C6 - C40)   | mg/kg | < 6    | NONE          | < 6    | < 6    |  |  |



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#### Soil Analysis Certificate - Sample Descriptions

|                              |  |
|------------------------------|--|
| DETS Report No: 21-04413     |  |
| Soils Ltd                    |  |
| Site Reference: Samson's Gym |  |
| Project / Job Ref: 19192     |  |
| Order No: 19192              |  |
| Reporting Date: 13/04/2021   |  |

| DETS Sample No | TP / BH No | Additional Refs | Depth (m) | Moisture Content (%) | Sample Matrix Description          |
|----------------|------------|-----------------|-----------|----------------------|------------------------------------|
| ^ 535985       | WS1        | None Supplied   | 0.20      | 15.3                 | Red sandy clay with brick          |
| ^ 535986       | WS1        | None Supplied   | 0.40      | 16.3                 | Brown sandy clay                   |
| ^ 535987       | WS1        | None Supplied   | 0.80      | 15.6                 | Light brown sandy clay             |
| ^ 535988       | WS2        | None Supplied   | 0.40      | 14.2                 | Light brown sandy clay             |
| ^ 535989       | WS2        | None Supplied   | 3.30      | 5.2                  | Brown sandy clay with stones       |
| ^ 535990       | WS4        | None Supplied   | 0.70      | 13.2                 | Light brown sandy clay             |
| ^ 535991       | WS4        | None Supplied   | 1.20      | 13.9                 | Light brown sandy clay with stones |

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample <sup>I/S</sup>

Unsuitable Sample <sup>U/S</sup>

^ no sampling date provided; unable to confirm if samples are within acceptable holding times



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# **Soil Analysis Certificate - Methodology & Miscellaneous Information**

**DETS Report No: 21-04413**

**Soils Ltd**

**Site Reference: Samson's Gym**

**Project / Job Ref: 19192**

**Order No: 19192**

**Reporting Date: 13/04/2021**

| Matrix | Analysed On | Determinand                                                                                                                                     | Brief Method Description                                                                                                                             | Method No |
|--------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Soil   | D           | Boron - Water Soluble                                                                                                                           | Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES                                                            | E012      |
| Soil   | AR          | BTEX                                                                                                                                            | Determination of BTEX by headspace GC-MS                                                                                                             | E001      |
| Soil   | D           | Cations                                                                                                                                         | Determination of cations in soil by aqua-regia digestion followed by ICP-OES                                                                         | E002      |
| Soil   | D           | Chloride - Water Soluble (2:1)                                                                                                                  | Determination of chloride by extraction with water & analysed by ion chromatography                                                                  | E009      |
| Soil   | AR          | Chromium - Hexavalent                                                                                                                           | Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry | E016      |
| Soil   | AR          | Cyanide - Complex                                                                                                                               | Determination of complex cyanide by distillation followed by colorimetry                                                                             | E015      |
| Soil   | AR          | Cyanide - Free                                                                                                                                  | Determination of free cyanide by distillation followed by colorimetry                                                                                | E015      |
| Soil   | AR          | Cyanide - Total                                                                                                                                 | Determination of total cyanide by distillation followed by colorimetry                                                                               | E015      |
| Soil   | D           | Cyclohexane Extractable Matter (CEM)                                                                                                            | Gravimetrically determined through extraction with cyclohexane                                                                                       | E011      |
| Soil   | AR          | Diesel Range Organics (C10 - C24)                                                                                                               | Determination of hexane/acetone extractable hydrocarbons by GC-FID                                                                                   | E004      |
| Soil   | AR          | Electrical Conductivity                                                                                                                         | Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement                             | E022      |
| Soil   | AR          | Electrical Conductivity                                                                                                                         | Determination of electrical conductivity by addition of water followed by electrometric measurement                                                  | E023      |
| Soil   | D           | Elemental Sulphur                                                                                                                               | Determination of elemental sulphur by solvent extraction followed by GC-MS                                                                           | E020      |
| Soil   | AR          | EPH (C10 - C40)                                                                                                                                 | Determination of acetone/hexane extractable hydrocarbons by GC-FID                                                                                   | E004      |
| Soil   | AR          | EPH Product ID                                                                                                                                  | Determination of acetone/hexane extractable hydrocarbons by GC-FID                                                                                   | E004      |
| Soil   | AR          | EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)                                                                                   | Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS                                        | E004      |
| Soil   | D           | Fluoride - Water Soluble                                                                                                                        | Determination of Fluoride by extraction with water & analysed by ion chromatography                                                                  | E009      |
| Soil   | D           | Fraction Organic Carbon (FOC)                                                                                                                   | Determination of TOC by combustion analyser.                                                                                                         | E027      |
| Soil   | D           | Organic Matter (SOM)                                                                                                                            | Determination of TOC by combustion analyser.                                                                                                         | E027      |
| Soil   | D           | TOC (Total Organic Carbon)                                                                                                                      | Determination of TOC by combustion analyser.                                                                                                         | E027      |
| Soil   | AR          | Exchangeable Ammonium                                                                                                                           | Determination of ammonium by discrete analyser.                                                                                                      | E029      |
| Soil   | D           | FOC (Fraction Organic Carbon)                                                                                                                   | Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate                     | E010      |
| Soil   | D           | Loss on Ignition @ 450oC                                                                                                                        | Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace                                       | E019      |
| Soil   | D           | Magnesium - Water Soluble                                                                                                                       | Determination of water soluble magnesium by extraction with water followed by ICP-OES                                                                | E025      |
| Soil   | D           | Metals                                                                                                                                          | Determination of metals by aqua-regia digestion followed by ICP-OES                                                                                  | E002      |
| Soil   | AR          | Mineral Oil (C10 - C40)                                                                                                                         | Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge                                                  | E004      |
| Soil   | AR          | Moisture Content                                                                                                                                | Moisture content; determined gravimetrically                                                                                                         | E003      |
| Soil   | D           | Nitrate - Water Soluble (2:1)                                                                                                                   | Determination of nitrate by extraction with water & analysed by ion chromatography                                                                   | E009      |
| Soil   | D           | Organic Matter                                                                                                                                  | Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate                                 | E010      |
| Soil   | AR          | PAH - Speciated (EPA 16)                                                                                                                        | Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards                | E005      |
| Soil   | AR          | PCB - 7 Congeners                                                                                                                               | Determination of PCB by extraction with acetone and hexane followed by GC-MS                                                                         | E008      |
| Soil   | D           | Petroleum Ether Extract (PEE)                                                                                                                   | Gravimetrically determined through extraction with petroleum ether                                                                                   | E011      |
| Soil   | AR          | pH                                                                                                                                              | Determination of pH by addition of water followed by electrometric measurement                                                                       | E007      |
| Soil   | AR          | Phenols - Total (monohydric)                                                                                                                    | Determination of phenols by distillation followed by colorimetry                                                                                     | E021      |
| Soil   | D           | Phosphate - Water Soluble (2:1)                                                                                                                 | Determination of phosphate by extraction with water & analysed by ion chromatography                                                                 | E009      |
| Soil   | D           | Sulphate (as SO4) - Total                                                                                                                       | Determination of total sulphate by extraction with 10% HCl followed by ICP-OES                                                                       | E013      |
| Soil   | D           | Sulphate (as SO4) - Water Soluble (2:1)                                                                                                         | Determination of sulphate by extraction with water & analysed by ion chromatography                                                                  | E009      |
| Soil   | D           | Sulphate (as SO4) - Water Soluble (2:1)                                                                                                         | Determination of water soluble sulphate by extraction with water followed by ICP-OES                                                                 | E014      |
| Soil   | AR          | Sulphide                                                                                                                                        | Determination of sulphide by distillation followed by colorimetry                                                                                    | E018      |
| Soil   | D           | Sulphur - Total                                                                                                                                 | Determination of total sulphur by extraction with aqua-regia followed by ICP-OES                                                                     | E024      |
| Soil   | AR          | SVOC                                                                                                                                            | Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS                                               | E006      |
| Soil   | AR          | Thiocyanate (as SCN)                                                                                                                            | Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry  | E017      |
| Soil   | D           | Toluene Extractable Matter (TEM)                                                                                                                | Gravimetrically determined through extraction with toluene                                                                                           | E011      |
| Soil   | D           | Total Organic Carbon (TOC)                                                                                                                      | Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate                                 | E010      |
| Soil   | AR          | TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)         | Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS       | E004      |
| Soil   | AR          | TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44) | Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS       | E004      |
| Soil   | AR          | VOCs                                                                                                                                            | Determination of volatile organic compounds by headspace GC-MS                                                                                       | E001      |
| Soil   | AR          | VPH (C6-C8 & C8-C10)                                                                                                                            | Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID                                                                            | E001      |

**D Dried**  
**AR As Received**



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**DETS Ltd**  
Unit 1  
Rose Lane Industrial Estate  
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Lenham Heath  
Kent  
ME17 2JN  
t: 01622 850410

## **DETS Report No: 21-04414**

**Site Reference:** Samson's Gym

**Project / Job Ref:** 19192

**Order No:** 19192

**Sample Receipt Date:** 07/04/2021

**Sample Scheduled Date:** 07/04/2021

**Report Issue Number:** 1

**Reporting Date:** 19/04/2021

**Authorised by:**

Dave Ashworth  
Technical Manager

Dates of laboratory activities for each tested analyte are available upon request.

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.



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Lenham Heath  
Maidstone  
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Tel : 01622 850410



| Soil Analysis Certificate    |                 |               |               |               |  |  |
|------------------------------|-----------------|---------------|---------------|---------------|--|--|
| DETS Report No: 21-04414     | Date Sampled    | None Supplied | None Supplied | None Supplied |  |  |
| Soils Ltd                    | Time Sampled    | None Supplied | None Supplied | None Supplied |  |  |
| Site Reference: Samson's Gym | TP / BH No      | WS2           | WS4           | BH1           |  |  |
| Project / Job Ref: 19192     | Additional Refs | None Supplied | None Supplied | None Supplied |  |  |
| Order No: 19192              | Depth (m)       | 1.30          | 2.20          | 9.00          |  |  |
| Reporting Date: 19/04/2021   | DETS Sample No  | 535992        | 535993        | 535994        |  |  |

| Determinand                                                   | Unit     | RL     | Accreditation |        |        |      |  |
|---------------------------------------------------------------|----------|--------|---------------|--------|--------|------|--|
| pH                                                            | pH Units | N/a    | MCERTS        | 7.8    | 8.2    | 8.1  |  |
| Total Sulphate as SO <sub>4</sub>                             | mg/kg    | < 200  | MCERTS        | < 200  | 302    | 408  |  |
| Total Sulphate as SO <sub>4</sub>                             | %        | < 0.02 | MCERTS        | < 0.02 | 0.03   | 0.04 |  |
| W/S Sulphate as SO <sub>4</sub> (2:1) <sup>(S)</sup>          | mg/l     | < 10   | MCERTS        | 28     | 19     | 270  |  |
| W/S Sulphate as SO <sub>4</sub> (2:1) <sup>(S)</sup>          | g/l      | < 0.01 | MCERTS        | 0.03   | 0.02   | 0.27 |  |
| Total Sulphur                                                 | %        | < 0.02 | NONE          | < 0.02 | < 0.02 | 0.23 |  |
| Ammonium as NH <sub>4</sub>                                   | mg/kg    | < 0.5  | NONE          | 0.7    | 0.9    | 4.5  |  |
| Ammonium as NH <sub>4</sub>                                   | mg/l     | < 0.05 | NONE          | 0.07   | 0.09   | 0.45 |  |
| W/S Chloride (2:1) <sup>(S)</sup>                             | mg/kg    | < 1    | MCERTS        | 8      | 22     | 28   |  |
| W/S Chloride (2:1) <sup>(S)</sup>                             | mg/l     | < 0.5  | MCERTS        | 3.8    | 11     | 14   |  |
| Water Soluble Nitrate (2:1) as NO <sub>3</sub> <sup>(S)</sup> | mg/kg    | < 3    | MCERTS        | 14     | < 3    | 38   |  |
| Water Soluble Nitrate (2:1) as NO <sub>3</sub> <sup>(S)</sup> | mg/l     | < 1.5  | MCERTS        | 7.2    | < 1.5  | 19   |  |
| W/S Magnesium                                                 | mg/l     | < 0.1  | NONE          | 0.8    | 0.9    | 2.1  |  |

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion  
Subcontracted analysis (S)



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#### Soil Analysis Certificate - Sample Descriptions

|                                     |  |
|-------------------------------------|--|
| <b>DETS Report No: 21-04414</b>     |  |
| <b>Soils Ltd</b>                    |  |
| <b>Site Reference: Samson's Gym</b> |  |
| <b>Project / Job Ref: 19192</b>     |  |
| <b>Order No: 19192</b>              |  |
| <b>Reporting Date: 19/04/2021</b>   |  |

| DETS Sample No | TP / BH No | Additional Refs | Depth (m) | Moisture Content (%) | Sample Matrix Description            |
|----------------|------------|-----------------|-----------|----------------------|--------------------------------------|
| ^ 535992       | WS2        | None Supplied   | 1.30      | 12.1                 | Light brown sandy clay with stones   |
| ^ 535993       | WS4        | None Supplied   | 2.20      | 8.3                  | Light brown sandy gravel with stones |
| ^ 535994       | BH1        | None Supplied   | 9.00      | 18.3                 | Grey sandy clay                      |

*Moisture content is part of procedure E003 & is not an accredited test*

Insufficient Sample <sup>U/S</sup>

Unsuitable Sample <sup>U/S</sup>

^ no sampling date provided; unable to confirm if samples are within acceptable holding times



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# Soil Analysis Certificate - Methodology & Miscellaneous Information

**DETS Report No: 21-04414**

**Soils Ltd**

**Site Reference: Samson's Gym**

**Project / Job Ref: 19192**

**Order No: 19192**

**Reporting Date: 19/04/2021**

| Matrix | Analysed On | Determinand                                                                                                                                     | Brief Method Description                                                                                                                             | Method No |
|--------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Soil   | D           | Boron - Water Soluble                                                                                                                           | Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES                                                            | E012      |
| Soil   | AR          | BTEX                                                                                                                                            | Determination of BTEX by headspace GC-MS                                                                                                             | E001      |
| Soil   | D           | Cations                                                                                                                                         | Determination of cations in soil by aqua-regia digestion followed by ICP-OES                                                                         | E002      |
| Soil   | D           | Chloride - Water Soluble (2:1)                                                                                                                  | Determination of chloride by extraction with water & analysed by ion chromatography                                                                  | E009      |
| Soil   | AR          | Chromium - Hexavalent                                                                                                                           | Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry | E016      |
| Soil   | AR          | Cyanide - Complex                                                                                                                               | Determination of complex cyanide by distillation followed by colorimetry                                                                             | E015      |
| Soil   | AR          | Cyanide - Free                                                                                                                                  | Determination of free cyanide by distillation followed by colorimetry                                                                                | E015      |
| Soil   | AR          | Cyanide - Total                                                                                                                                 | Determination of total cyanide by distillation followed by colorimetry                                                                               | E015      |
| Soil   | D           | Cyclohexane Extractable Matter (CEM)                                                                                                            | Gravimetrically determined through extraction with cyclohexane                                                                                       | E011      |
| Soil   | AR          | Diesel Range Organics (C10 - C24)                                                                                                               | Determination of hexane/acetone extractable hydrocarbons by GC-FID                                                                                   | E004      |
| Soil   | AR          | Electrical Conductivity                                                                                                                         | Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement                             | E022      |
| Soil   | AR          | Electrical Conductivity                                                                                                                         | Determination of electrical conductivity by addition of water followed by electrometric measurement                                                  | E023      |
| Soil   | D           | Elemental Sulphur                                                                                                                               | Determination of elemental sulphur by solvent extraction followed by GC-MS                                                                           | E020      |
| Soil   | AR          | EPH (C10 - C40)                                                                                                                                 | Determination of acetone/hexane extractable hydrocarbons by GC-FID                                                                                   | E004      |
| Soil   | AR          | EPH Product ID                                                                                                                                  | Determination of acetone/hexane extractable hydrocarbons by GC-FID                                                                                   | E004      |
| Soil   | AR          | EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)                                                                                   | Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS                                        | E004      |
| Soil   | D           | Fluoride - Water Soluble                                                                                                                        | Determination of Fluoride by extraction with water & analysed by ion chromatography                                                                  | E009      |
| Soil   | D           | Fraction Organic Carbon (FOC)                                                                                                                   | Determination of TOC by combustion analyser.                                                                                                         | E027      |
| Soil   | D           | Organic Matter (SOM)                                                                                                                            | Determination of TOC by combustion analyser.                                                                                                         | E027      |
| Soil   | D           | TOC (Total Organic Carbon)                                                                                                                      | Determination of TOC by combustion analyser.                                                                                                         | E027      |
| Soil   | AR          | Exchangeable Ammonium                                                                                                                           | Determination of ammonium by discrete analyser.                                                                                                      | E029      |
| Soil   | D           | FOC (Fraction Organic Carbon)                                                                                                                   | Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate                     | E010      |
| Soil   | D           | Loss on Ignition @ 450oC                                                                                                                        | Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace                                       | E019      |
| Soil   | D           | Magnesium - Water Soluble                                                                                                                       | Determination of water soluble magnesium by extraction with water followed by ICP-OES                                                                | E025      |
| Soil   | D           | Metals                                                                                                                                          | Determination of metals by aqua-regia digestion followed by ICP-OES                                                                                  | E002      |
| Soil   | AR          | Mineral Oil (C10 - C40)                                                                                                                         | Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge                                                  | E004      |
| Soil   | AR          | Moisture Content                                                                                                                                | Moisture content; determined gravimetrically                                                                                                         | E003      |
| Soil   | D           | Nitrate - Water Soluble (2:1)                                                                                                                   | Determination of nitrate by extraction with water & analysed by ion chromatography                                                                   | E009      |
| Soil   | D           | Organic Matter                                                                                                                                  | Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate                                 | E010      |
| Soil   | AR          | PAH - Speciated (EPA 16)                                                                                                                        | Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards                | E005      |
| Soil   | AR          | PCB - 7 Congeners                                                                                                                               | Determination of PCB by extraction with acetone and hexane followed by GC-MS                                                                         | E008      |
| Soil   | D           | Petroleum Ether Extract (PEE)                                                                                                                   | Gravimetrically determined through extraction with petroleum ether                                                                                   | E011      |
| Soil   | AR          | pH                                                                                                                                              | Determination of pH by addition of water followed by electrometric measurement                                                                       | E007      |
| Soil   | AR          | Phenols - Total (monohydric)                                                                                                                    | Determination of phenols by distillation followed by colorimetry                                                                                     | E021      |
| Soil   | D           | Phosphate - Water Soluble (2:1)                                                                                                                 | Determination of phosphate by extraction with water & analysed by ion chromatography                                                                 | E009      |
| Soil   | D           | Sulphate (as SO4) - Total                                                                                                                       | Determination of total sulphate by extraction with 10% HCl followed by ICP-OES                                                                       | E013      |
| Soil   | D           | Sulphate (as SO4) - Water Soluble (2:1)                                                                                                         | Determination of sulphate by extraction with water & analysed by ion chromatography                                                                  | E009      |
| Soil   | D           | Sulphate (as SO4) - Water Soluble (2:1)                                                                                                         | Determination of water soluble sulphate by extraction with water followed by ICP-OES                                                                 | E014      |
| Soil   | AR          | Sulphide                                                                                                                                        | Determination of sulphide by distillation followed by colorimetry                                                                                    | E018      |
| Soil   | D           | Sulphur - Total                                                                                                                                 | Determination of total sulphur by extraction with aqua-regia followed by ICP-OES                                                                     | E024      |
| Soil   | AR          | SVOC                                                                                                                                            | Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS                                               | E006      |
| Soil   | AR          | Thiocyanate (as SCN)                                                                                                                            | Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry  | E017      |
| Soil   | D           | Toluene Extractable Matter (TEM)                                                                                                                | Gravimetrically determined through extraction with toluene                                                                                           | E011      |
| Soil   | D           | Total Organic Carbon (TOC)                                                                                                                      | Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate                                 | E010      |
| Soil   | AR          | TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)         | Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS       | E004      |
| Soil   | AR          | TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44) | Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS       | E004      |
| Soil   | AR          | VOCs                                                                                                                                            | Determination of volatile organic compounds by headspace GC-MS                                                                                       | E001      |
| Soil   | AR          | VPH (C6-C8 & C8-C10)                                                                                                                            | Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID                                                                            | E001      |

**D Dried**  
**AR As Received**



4161

**SOILS LIMITED**

Newton House  
Cross Road  
Surrey  
KT20 5SR

**Analytical Test Report: L25/11007/SLT - 25-86768**

|                         |                                                                                  |                                |                         |
|-------------------------|----------------------------------------------------------------------------------|--------------------------------|-------------------------|
| Your Project Reference: | <b>Samson Gym, 237 Chamberlayne Road, Eastleigh, Hampshire SO50 5JB 22136/ML</b> |                                |                         |
| Your Order Number:      | 22136/ML                                                                         | Samples Received / Instructed: | 17/10/2025 / 17/10/2025 |
| Report Issue Number:    | 1                                                                                | Sample Tested:                 | 17/10 to 31/10/2025     |
| Samples Analysed:       | 4 sample(s)                                                                      | Report issued:                 | 31/10/2025              |

Signed



**James Gane**  
Analytical Services Manager  
CTS

**Notes:****General**

Please refer to Methodologies page for details pertaining to the analytical methods undertaken.

Samples will be retained for 14 days after issue of this report with the exception of the asbestos test portion which is held for 6 months unless otherwise requested.

Moisture Content was determined in accordance with CTS method statement MS - CL - Sample Prep, oven dried at <30°C.

Moisture Content is reported as a percentage of the dry mass of soil, this calculation is in accordance with BS1377, Part 2, 1990, Clause 3.2

Stone Content was determined in accordance with CTS method statement MS - CL - Sample Prep and refers to the percentage of stones retained on a 10mm BS test sieve.

**Where specification limits are included these are for guidance only. Where a measured value has been highlighted this is not implying acceptance or failure and certainty of measurement values have not been taken into account.**

**Uncertainty of measurement values are available on request.**

Samples were supplied by customer, results apply to the samples as received.

**Asbestos**

Please note: Where further analysis is required samples identified as containing asbestos are screened and tested on an as received basis. No correction is made for moisture content and other than the asbestos test(s) these results are not covered by our accreditation

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation

**Deviating Samples**

On receipt samples are compared against our sample holding and handling protocols, where any deviations have been noted these are reported on our deviating sample page (if present)

**Accreditation Key**

This report shall not be reproduced except in full

UKAS = UKAS Accreditation, MCERTS = MCERTS Accreditation, u = Unaccredited, subUKAS - Subcontracted to a laboratory UKAS accredited for this test, subMCERTS - Subcontracted to a laboratory MCERTS accredited for this test

MCERTS Accreditation only covers the SAND, CLAY and LOAM matrices

UKAS accreditation on waters only covers the Ground water and Surface water matrices

Date of Issue: 27.08.25

Issued by: J. Gane

Issue No: 4

Rev No: 27



4161



L25/11007/SLT - 25-86768

Project Reference - Samson Gym, 237

Chamberlayne Road, Eastleigh, Hampshire SO50

Analytical Test Results - Solid

| Lab Reference               |          |               | 618752               | 618753               | 618754               | 618755               |
|-----------------------------|----------|---------------|----------------------|----------------------|----------------------|----------------------|
| Client Sample ID            |          |               | -                    | -                    | -                    | -                    |
| Client Sample Location      |          |               | WS3                  | WS4                  | WS1                  | WS2                  |
| Client Sample Type          |          |               | D                    | D                    | D                    | D                    |
| Client Sample Number        |          |               | -                    | -                    | -                    | -                    |
| Depth - Top (m)             |          |               | 0.30                 | 0.40                 | 0.90                 | 0.40                 |
| Depth - Bottom (m)          |          |               | 0.30                 | 0.40                 | 0.90                 | 0.40                 |
| Date of Sampling            |          |               | 15/10/2025           | 15/10/2025           | 15/10/2025           | 15/10/2025           |
| Time of Sampling            |          |               | -                    | -                    | -                    | -                    |
| Sample Matrix               |          |               | Clay                 | Clay                 | Clay                 | Clay                 |
| Determinant                 | Units    | Accreditation |                      |                      |                      |                      |
| Arsenic                     | (mg/kg)  | MCERTS        | < 10                 | < 10                 | < 10                 | < 10                 |
| Boron (w/s)                 | (mg/kg)  | u             | < 2.5                | < 2.5                | < 2.5                | < 2.5                |
| Cadmium                     | (mg/kg)  | MCERTS        | 0.4                  | 0.4                  | 0.5                  | 0.4                  |
| Chromium (Total)            | (mg/kg)  | UKAS          | 7.6                  | 5.8                  | 7.5                  | 5.9                  |
| Copper                      | (mg/kg)  | MCERTS        | 8.7                  | 7.0                  | 14                   | 11                   |
| Lead                        | (mg/kg)  | MCERTS        | 18                   | 12                   | 160                  | 33                   |
| Mercury                     | (mg/kg)  | UKAS          | < 2.5                | < 2.5                | < 2.5                | < 2.5                |
| Nickel                      | (mg/kg)  | MCERTS        | 11                   | 11                   | 15                   | 11                   |
| Selenium                    | (mg/kg)  | u             | < 8.0                | < 8.0                | < 8.0                | < 8.0                |
| Vanadium                    | (mg/kg)  | UKAS          | 24                   | 24                   | 31                   | 24                   |
| Zinc                        | (mg/kg)  | MCERTS        | 30                   | 27                   | 48                   | 43                   |
| Total Phenols               | (mg/kg)  | MCERTS        | < 1.0                | < 1.0                | < 1.0                | < 1.0                |
| Cyanide (Total)             | (mg/kg)  | MCERTS        | -                    | -                    | < 1.0                | < 1.0                |
| Cyanide (Free)              | (mg/kg)  | u             | -                    | -                    | < 1.0                | < 1.0                |
| Chromium (Hexavalent)       | (mg/kg)  | u             | < 1.0                | < 1.0                | < 1.0                | < 1.0                |
| pH                          | pH Units | MCERTS        | 9.0                  | 8.7                  | 8.3                  | 8.4                  |
| Acenaphthene                | (mg/kg)  | MCERTS        | < 0.02               | < 0.02               | < 0.02               | < 0.02               |
| Acenaphthylene              | (mg/kg)  | UKAS          | < 0.02               | < 0.02               | < 0.02               | < 0.02               |
| Anthracene                  | (mg/kg)  | UKAS          | < 0.02               | < 0.02               | < 0.02               | < 0.02               |
| Benzo (a) anthracene        | (mg/kg)  | MCERTS        | < 0.02               | < 0.02               | 0.05                 | < 0.02               |
| Benzo (a) pyrene            | (mg/kg)  | MCERTS        | < 0.02               | < 0.02               | 0.05                 | < 0.02               |
| Benzo (b) fluoranthene      | (mg/kg)  | MCERTS        | < 0.02               | < 0.02               | 0.06                 | < 0.02               |
| Benzo (g, h, i) perylene    | (mg/kg)  | MCERTS        | < 0.02               | < 0.02               | 0.04                 | < 0.02               |
| Benzo (k) fluoranthene      | (mg/kg)  | MCERTS        | < 0.02               | < 0.02               | 0.02                 | < 0.02               |
| Chrysene                    | (mg/kg)  | MCERTS        | < 0.02               | < 0.02               | 0.05                 | < 0.02               |
| Dibenzo (a,h) anthracene    | (mg/kg)  | MCERTS        | < 0.02               | < 0.02               | < 0.02               | < 0.02               |
| Fluoranthene                | (mg/kg)  | MCERTS        | 0.03                 | < 0.02               | 0.12                 | < 0.02               |
| Fluorene                    | (mg/kg)  | MCERTS        | < 0.02               | < 0.02               | < 0.02               | < 0.02               |
| Indeno (1, 2, 3,-cd) pyrene | (mg/kg)  | MCERTS        | < 0.02               | < 0.02               | 0.04                 | < 0.02               |
| Naphthalene                 | (mg/kg)  | MCERTS        | < 0.02               | < 0.02               | < 0.02               | < 0.02               |
| Phenanthrene                | (mg/kg)  | MCERTS        | < 0.02               | < 0.02               | 0.04                 | < 0.02               |
| Pyrene                      | (mg/kg)  | MCERTS        | 0.02                 | < 0.02               | 0.11                 | < 0.02               |
| Total PAH (Sum of USEPA 16) | (mg/kg)  | UKAS          | 0.37                 | < 0.32               | 0.71                 | < 0.32               |
| SOM (via TOC)               | (%)      | UKAS          | < 0.9                | < 0.9                | 0.9                  | 1.0                  |
| Asbestos                    | -        | UKAS          | No Asbestos Detected | No Asbestos Detected | No Asbestos Detected | No Asbestos Detected |
| PCB 28                      | (mg/kg)  | MCERTS        | -                    | -                    | < 0.004              | < 0.004              |
| PCB 52                      | (mg/kg)  | MCERTS        | -                    | -                    | < 0.004              | < 0.004              |
| PCB 101                     | (mg/kg)  | MCERTS        | -                    | -                    | < 0.004              | < 0.004              |
| PCB 118                     | (mg/kg)  | MCERTS        | -                    | -                    | < 0.004              | < 0.004              |
| PCB 153                     | (mg/kg)  | MCERTS        | -                    | -                    | < 0.004              | < 0.004              |
| PCB 138                     | (mg/kg)  | MCERTS        | -                    | -                    | < 0.004              | < 0.004              |
| PCB 180                     | (mg/kg)  | MCERTS        | -                    | -                    | < 0.004              | < 0.004              |



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L25/11007/SLT - 25-86768

Project Reference - Samson Gym, 237

Chamberlayne Road, Eastleigh, Hampshire SO50

Analytical Test Results - VPH / EPH

| Lab Reference                                                  |         |               | 618752     | 618753     | 618754     | 618755     |
|----------------------------------------------------------------|---------|---------------|------------|------------|------------|------------|
| Client Sample ID                                               |         |               | -          | -          | -          | -          |
| Client Sample Location                                         |         |               | WS3        | WS4        | WS1        | WS2        |
| Client Sample Type                                             |         |               | D          | D          | D          | D          |
| Client Sample Number                                           |         |               | -          | -          | -          | -          |
| Depth - Top (m)                                                |         |               | 0.30       | 0.40       | 0.90       | 0.40       |
| Depth - Bottom (m)                                             |         |               | 0.30       | 0.40       | 0.90       | 0.40       |
| Date of Sampling                                               |         |               | 15/10/2025 | 15/10/2025 | 15/10/2025 | 15/10/2025 |
| Time of Sampling                                               |         |               | -          | -          | -          | -          |
| Sample Matrix                                                  |         |               | Clay       | Clay       | Clay       | Clay       |
| Determinant                                                    | Units   | Accreditation |            |            |            |            |
| Benzene                                                        | (mg/kg) | MCERTS        | -          | -          | < 0.01     | < 0.01     |
| Toluene                                                        | (mg/kg) | MCERTS        | -          | -          | < 0.01     | < 0.01     |
| Ethylbenzene                                                   | (mg/kg) | MCERTS        | -          | -          | < 0.01     | < 0.01     |
| m&p Xylene                                                     | (mg/kg) | MCERTS        | -          | -          | < 0.02     | < 0.02     |
| o-Xylene                                                       | (mg/kg) | MCERTS        | -          | -          | < 0.01     | < 0.01     |
| MTBE                                                           | (mg/kg) | MCERTS        | -          | -          | < 0.01     | < 0.01     |
| Aliphatic >C <sub>5</sub> to C <sub>6</sub> [HS_MS_1D_AL]      | (mg/kg) | MCERTS        | -          | -          | < 0.06     | < 0.06     |
| Aliphatic >C <sub>6</sub> to C <sub>8</sub> [HS_MS_1D_AL]      | (mg/kg) | MCERTS        | -          | -          | < 0.06     | < 0.06     |
| Aliphatic >C <sub>8</sub> to C <sub>10</sub> [HS_MS_1D_AL]     | (mg/kg) | MCERTS        | -          | -          | < 0.06     | < 0.06     |
| Aliphatic >C <sub>10</sub> to C <sub>12</sub> [EH_2D_AL]       | (mg/kg) | MCERTS        | -          | -          | < 1.0      | < 1.0      |
| Aliphatic >C <sub>12</sub> to C <sub>16</sub> [EH_2D_AL]       | (mg/kg) | MCERTS        | -          | -          | < 1.0      | < 1.0      |
| Aliphatic >C <sub>16</sub> to C <sub>21</sub> [EH_2D_AL]       | (mg/kg) | MCERTS        | -          | -          | 3.7        | 1.8        |
| Aliphatic >C <sub>21</sub> to C <sub>35</sub> [EH_2D_AL]       | (mg/kg) | MCERTS        | -          | -          | 10         | 4.7        |
| Aliphatic >C <sub>35</sub> to C <sub>44</sub> [EH_2D_AL]       | (mg/kg) | u             | -          | -          | < 5.0      | < 5.0      |
| Aromatic >C <sub>5</sub> to C <sub>7</sub> [HS_MS_1D_AR]       | (mg/kg) | MCERTS        | -          | -          | < 0.01     | < 0.01     |
| Aromatic >C <sub>7</sub> to C <sub>8</sub> [HS_MS_1D_AR]       | (mg/kg) | MCERTS        | -          | -          | < 0.01     | < 0.01     |
| Aromatic >C <sub>8</sub> to C <sub>10</sub> [HS_MS_1D_AR]      | (mg/kg) | MCERTS        | -          | -          | < 0.06     | < 0.06     |
| Aromatic >C <sub>10</sub> to C <sub>12</sub> [EH_2D_AR]        | (mg/kg) | MCERTS        | -          | -          | < 1.0      | < 1.0      |
| Aromatic >C <sub>12</sub> to C <sub>16</sub> [EH_2D_AR]        | (mg/kg) | MCERTS        | -          | -          | < 1.0      | < 1.0      |
| Aromatic >C <sub>16</sub> to C <sub>21</sub> [EH_2D_AR]        | (mg/kg) | MCERTS        | -          | -          | 2.0        | 1.3        |
| Aromatic >C <sub>21</sub> to C <sub>35</sub> [EH_2D_AR]        | (mg/kg) | MCERTS        | -          | -          | 5.3        | < 2.0      |
| Aromatic >C <sub>35</sub> to C <sub>44</sub> [EH_2D_AR]        | (mg/kg) | u             | -          | -          | < 5.0      | < 5.0      |
| Total >C <sub>5</sub> to C <sub>35</sub> [EH_2D+HS_1D_Total]   | (mg/kg) | MCERTS        | -          | -          | 21         | < 10       |
| Total >C <sub>5</sub> to C <sub>40</sub> [EH_2D+HS_1D_Total]   | (mg/kg) | MCERTS        | -          | -          | 21         | < 10       |
| GRO (>C <sub>5</sub> to C <sub>8</sub> ) [HS_MS_1D_AL+AD]      | (mg/kg) | u             | < 0.16     | < 0.16     | -          | -          |
| GRO (>C <sub>8</sub> to C <sub>10</sub> ) [EH_1D_Total]        | (mg/kg) | MCERTS        | < 5.0      | < 5.0      | -          | -          |
| Total TPH (>C <sub>10</sub> to C <sub>12</sub> ) [EH_1D_Total] | (mg/kg) | MCERTS        | < 5.0      | < 5.0      | -          | -          |
| Total TPH (>C <sub>12</sub> to C <sub>16</sub> ) [EH_1D_Total] | (mg/kg) | MCERTS        | < 5.0      | < 5.0      | -          | -          |
| Total TPH (>C <sub>16</sub> to C <sub>21</sub> ) [EH_1D_Total] | (mg/kg) | MCERTS        | < 5.0      | < 5.0      | -          | -          |
| MRO (>C <sub>21</sub> to C <sub>40</sub> ) [EH_1D_Total]       | (mg/kg) | MCERTS        | < 15.0     | < 15.0     | -          | -          |
| Total TPH (C <sub>6</sub> -C <sub>40</sub> ) [EH+HS_1D_Total]  | (mg/kg) | u             | 17         | 17         | -          | -          |



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7 - 11 Harding Street  
Leicester  
LE1 4DH

L25/11007/SLT - 25-86768

Project Reference - Samson Gym, 237 Chamberlayne Road, Eastleigh, Hampshire SO50 5JB 22136/ML

#### Sample Descriptions

| Lab Reference | Client Sample ID | Client Sample Location | Client Sample Type | Client Sample Number | Description                         | Moisture Content (%) | Stone Content (%) |
|---------------|------------------|------------------------|--------------------|----------------------|-------------------------------------|----------------------|-------------------|
| 618752        | -                | WS3                    | D                  | -                    | Brown sandy clay with rare rootlets | 13                   | < 0.1             |
| 618753        | -                | WS4                    | D                  | -                    | Brown sandy clay                    | 11                   | < 0.1             |
| 618754        | -                | WS1                    | D                  | -                    | Brown silty clay                    | 19                   | 7.5               |
| 618755        | -                | WS2                    | D                  | -                    | Brown silty clay                    | 21                   | < 0.1             |



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7 - 11 Harding Street  
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Sample Comments

| Lab Reference | Client Sample ID | Client Sample Location | Client Sample Type | Client Sample Number | Comments |
|---------------|------------------|------------------------|--------------------|----------------------|----------|
| 618752        | -                | WS3                    | D                  | -                    |          |
| 618753        | -                | WS4                    | D                  | -                    |          |
| 618754        | -                | WS1                    | D                  | -                    |          |
| 618755        | -                | WS2                    | D                  | -                    |          |



**L25/11007/SLT - 25-86768**

**Project Reference - Samson Gym, 237 Chamberlayne Road, Eastleigh, Hampshire SO50 5JB 22136/ML**

**Analysis Methodologies - Please refer to sample comments page (if present) for any changes to methods**

| Test Code  | Test Name / Reference                   | Sample condition for analysis | Sample Preparation      | Test Details                                                                                                                                                                                                                  |
|------------|-----------------------------------------|-------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SKALARCNS  | MS - CL - Cyanide by Skalar             | As received                   | Passing 10mm test sieve | Determination of cyanide (total / free / complex) in soil using a Skalar segmented flow analyser                                                                                                                              |
| SKALARHCS  | MS - CL - Hexavalent Chromium by Skalar | As received                   | Passing 10mm test sieve | Determination of hexavalent chromium in soil using Skalar segmented flow analyser                                                                                                                                             |
| ICPMETS    | MS - CL - ICP Metals                    | Air dried                     | Passing 10mm test sieve | Determination of metals in soils via ICP                                                                                                                                                                                      |
| PHS        | MS - CL - pH in Soils                   | As received                   | Passing 10mm test sieve | Determination of pH in soils using a pH probe (using a 1:3 soil to water extraction)                                                                                                                                          |
| PCB7S      | MS - CL - PCB Soils                     | As received                   | Passing 10mm test sieve | Determination of PCB's (7 congeners) in soils via GC-MS                                                                                                                                                                       |
| PAHASRDS   | MS - CL - PAH (As Received)             | As received                   | Passing 10mm test sieve | Determination of Polyaromatic hydrocarbons in soil via GC-MS                                                                                                                                                                  |
| SKALARPHS  | MS - CL - Phenols by Skalar             | As received                   | Passing 10mm test sieve | Determination of total phenols in soil using Skalar segmented flow analyser                                                                                                                                                   |
| TOCS       | MS - CL - TOC Eltra                     | Air Dried                     | Passing 10mm test sieve | Determination of Total Organic Carbon in soils                                                                                                                                                                                |
| TPHS       | MS - CL - TPH (GC-FID)                  | As received                   | Passing 10mm test sieve | Determination of Total Petroleum Hydrocarbons in soil using GC-FID                                                                                                                                                            |
| GCXGCS     | MS - CL - TPH & EPH by GCXGC            | As received                   | Passing 10mm test sieve | Determination of TPH and EPH in soils via GCxGC-FID                                                                                                                                                                           |
| CWGS       | Calculation from VPH-S and EPH-S        | As received                   | Passing 10mm test sieve | Determination of TPH CWG (Volatile Petroleum Hydrocarbons and Extractable Petroleum Hydrocarbons) in soils via Headspace-GC-MS and GC-GC-FID respectively                                                                     |
| VPHS       | MS - CL - VPH                           | As received                   | Passing 10mm test sieve | Determination of VPH in soils via Headspace-GC-MS                                                                                                                                                                             |
| WSBORONS   | MS - CL - WS Boron                      | Air dried                     | Passing 10mm test sieve | Determination of Water soluble Boron in soils via ICP                                                                                                                                                                         |
| ASB        | MS - AS - Asbestos                      | -                             | -                       | Fibre identification is in accordance with in house documented methods which are based on the procedure documented in the HSE Document HSG 248 "Asbestos: The analysts guide for sampling, analysis and clearance procedures" |
| SAMPLEPREP | MS - CL - Sample Preparation            | -                             | -                       | Preparation of samples (including determination of moisture content) to allow for subsequent analysis                                                                                                                         |



**L25/11007/SLT - 25-86768**

**Project Reference - Samson Gym, 237 Chamberlayne Road, Eastleigh, Hampshire SO50 5JB 22136/ML**

**HWOL TPH Acronym Index**

| 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                                 |
| Total   | Aliphatics and Aromatics                                            |
| AL      | Aliphatics Only                                                     |
| AR      | Aromatics Only                                                      |
| 2D      | GC-GC - Double Coil Gas Chromatography                              |
| #1      | EH_Total but with humics mathmatically subtracted                   |
| #2      | EH_Total but with fatty acids mathmatically subtracted              |
| _       | Operator - underscore to separate acronyms (except for +)           |
| +       | Operator to indicate cumlative e.g. EH+HS_Total or EH_CU+HS_Total   |
| MS      | Mass Spectrometry                                                   |

## **Appendix E.3    General Assessment Criteria**

# HUMAN HEALTH RISK ASSESSMENT

## Introduction

The statutory definition of contaminated land was initially defined in the Environmental Protection Act 1990, ref. 1.1, which was introduced by the Environment Act 1995, ref. 1.2, and retained in the Environment Act 2021, ref 1.3, as;

‘Land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that –

- (a) significant harm is being caused or there is a significant possibility of such harm being caused; or
- (b) pollution of controlled waters is being, or is likely to be, caused.’

The UK guidance on the assessment of contaminated land has developed as a direct result of the introduction of these Acts. The technical guidance supporting the original legislation was summarised in a number of key documents collectively known as the Contaminated Land Reports (CLRs). These have since been replaced or superseded by Land Contamination Risk Management (LCRM) 2021, ref 1.4 produced and administrated by the Environment Agency online through the .GOV.uk website <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm> .

However, the basic definitions, methodology and guidance remain essentially the same utilizing the UK Contaminated Land Exposure Assessment Models (CLEA) as within the original CLR and planning guidance it replaces or supersedes.

In establishing whether a site fulfils the statutory definition of ‘contaminated land’ it remains necessary to identify, whether a pollutant linkage exists in respect of the land in question and whether the pollutant linkage:

- is resulting in significant harm being caused to the identified receptor in the pollutant linkage,
- presents a significant possibility of significant harm being caused to that receptor,
- is resulting in the pollution of the controlled waters which constitute the receptor, or
- is likely to result in such pollution.

A ‘pollutant linkage’ may therefore be defined as the confirmation of a link between a contaminant ‘source’ and a vulnerable at risk ‘receptor’ by means of a ‘pathway’ and that the risk is potentially significant. If there is no complete linkage, risk defaults to low to negligible and can never be potentially significant.

## Assessment Methodology

A four-stage assessment process is followed for identifying potential pollutant linkages on a site. These stages are summarised in the table below:

| No. | Process               | Description                                                                                                                                                    |
|-----|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Hazard Identification | Establishing contaminant sources, pathways and receptors (the conceptual model).                                                                               |
| 2   | Hazard Assessment     | Analysing the potential for unacceptable risks (what linkages could be present, what could be the effects).                                                    |
| 3   | Risk Estimation       | Trying to establish the magnitude and probability of the possible consequences (what degree of harm might result and to what receptors, and how likely is it). |
| 4   | Risk Evaluation       | Deciding whether the risk is unacceptable in the context of existing and future proposals.                                                                     |

Stages 1 and 2 develop an initial '*conceptual model*' based upon information collated from desk-based available and existing site information and a walkover of the site as recommended in BS10175 and LCRM. The formation of any conceptual model is an iterative process and as such it should be updated and refined throughout each phase of the project to reflect any additional information obtained and unknowns being resolved and identify the potential contaminants of concern at the site, i.e. those with the potential to cause significant harm to identified receptors.

The extent of the desk studies and enquiries to be conducted should be in general accordance with BS10175 and other UK guidance to produce an initial conceptual model highlighting the known potential risks, remaining unknowns and contaminants of concern. The information from these enquiries is presented in a desk study or preliminary report with recommendations, if necessary, for further work based upon the conceptual model findings and any identified or unresolved unknowns.

If potential pollutant linkages or potentially significant unknowns are identified within the initial conceptual model, further site investigation and report will be recommended and usually required under planning. Such investigation should be based on and driven by the findings of the initial conceptual model and planned in general accordance with BS10175, LCRM and other current UK guidance where relevant. The number of exploratory holes and samples collected for analysis should be consistent with the size, extent and nature of the site, the identified contaminants of concern and the level of initial risk identified in the initial conceptual model. This will enable a contamination risk assessment to be conducted in accordance with current UK requirements, at which point the conceptual model can be updated and any relevant pollutant linkages can be further quantified and any remaining unknowns resolved. As previously this is an iterative process that may highlight or require additional investigation to resolve to the satisfaction of the regulator.

A two-stage investigation process may therefore be more appropriate where time constraints are less of an issue with the first intrusive investigation being conducted as an initial or screening assessment to confirm or validate the presence of potential sources on site identified in the initial conceptual model and to investigate if additional unknown sources not previously identified are present. This helps to define the scope, extent and requirements of a second more refined and targeted investigation to delineate wherever possible the extent of the identified contamination, contaminants of concern and/or remaining unknowns.

All site works should be undertaken in general accordance with the British Standards BS 10175, ref. 5, for environmental only investigations and BS 5930:2015, ref. 1.6, in the case of combined Geoenvironmental and/or Geotechnical investigations.

The results of analysis are compared initially against generic guidance values which are dependent on the proposed end-use of the development and which must ultimately be based on traceable, scientifically valid and justified exposure and chemical data using the UKCLEA methodology.

The end-use and therefore potential exposure pathways may be defined as one of the following under current UK guidance;

- Residential with homegrown produce i.e. typical low rise and low-density housing with gardens where vegetables and fruits may be grown for home consumption.
- Residential without homegrown produce i.e. low-density housing where no gardens are present where vegetables and fruits could be grown for home consumption.
- Allotments – i.e. areas where vegetables and fruits are grown for home consumption but are not specifically associated with a residential property.
- Public open space residential – i.e. grassed areas adjacent and/or directly related to high density housing and other common or communal open areas on which underlying soils could be exposed but on which vegetables and fruits are not grown for consumption.
- Public open space – i.e. areas such as parks, playing fields and other recreational areas to which public access is possible but otherwise to which there is no direct residential linkage.
- Commercial – i.e. industrial premises where there is limited exposure to soil and residents are not present on site.

### **Standard Land-use Scenarios**

The standard land-use scenarios used to develop exposure models are further detailed in the following sections:

#### **Residential with homegrown produce**

Generic scenario assumes a house built on a ground bearing slab with a private garden having a lawn, flowerbeds and a small fruit and vegetable patch.

- 
- Critical receptor is assumed to be a young female child (zero to six years old)
  - Exposure pathways include direct soil and indoor dust ingestion, consumption of home-grown produce and any adhering soil, skin contact with soils and indoor dust and inhalation of indoor and outdoor dust and vapours.
- 

A sub-set of the Residential land-use is **Residential without Homegrown produce**. The generic scenario assumes low density housing with communal landscaped gardens where the consumption of homegrown vegetables will not occur and the pathways of direct ingestion and produce inputs are suitably moderated.

### Allotments

Areas of open space commonly made available to local users but remote from residential properties, but on which tenants may grow fruit and vegetables for their own consumption. Typically, there are a number of plots to a site which may have a total area of up to 1 hectare. The tenants are assumed to be adults and that young children make only occasional accompanied visits.

Although some allotment holders may choose to keep animals on allotments, potential exposure to animal products is not currently considered within the CLEA model.

- 
- Critical receptor is a young female child (zero to six years old)
  - Exposure pathways include direct soil ingestion, consumption of homegrown produce and any adhering soil, skin contact with soils and inhalation of outdoor dust and vapours but at reduced exposure levels reflecting non-residential status.
- 

### Commercial

This generic scenario assumes a typical commercial or light industrial property at which employees spend most time indoors and are involved in office-based or relatively light physical work.

- 
- Critical receptor is a working female adult (aged 16 to 65 years old).
  - Exposure duration is over working lifetime
  - Exposure pathways include direct soil and indoor dust ingestion, skin contact with soils and dusts and inhalation of dust and vapours but exposure reduced to reflect non-residential nature and general lack of open spaces.
- 

### Public Open Space within Residential Area

This generic scenario refers to any grassed area up to 0.05 ha that is associated with residential properties but is not for their exclusive use and on which no fruit or vegetables are grown for home consumption.

- 
- Grassed area of up to 0.05 ha and a considerable proportion of this (up to 50%) may be bare soil which can be interacted with directly
  - Predominantly used by children for play and/or access
  - Sufficiently close proximity to home for tracking back of soil to occur, thus indoor exposure pathways apply
-

- 
- older children chosen as the critical receptor on basis that they will use site most frequently (age class 4-9 years)
- 
- ingestion rate assumed to be 75 mg.day<sup>-1</sup>
- 

### Public Open Space Park

This generic scenario refers to any public park or grassed space that is more than 0.5ha in area:

- 
- Public park (>0.5 ha), predominantly grassed and may also contain children's play equipment and border areas of soil containing flowers or shrubs (75% assumed cover)
- 
- Female child age classes 1-6
- 
- Soil ingestion rate of 50 mg.day<sup>-1</sup>
- 
- Occupancy period outdoors = 2 hours.day<sup>-1</sup>
- 
- Exposure frequency of 170 days.year<sup>-1</sup> for age classes 2-18 and 85 days.year<sup>-1</sup> for age class 1
- 
- Outdoor exposure pathways only (no tracking back of soils).
- 

Human Health Generic Quantitative Risk Assessment (GQRA) involves the comparison of contaminant concentrations measured in soil at the site with Generic Assessment Criteria (GAC) generated using the CLEA model based on the exposure and land use scenario assumptions noted above.

GAC's are deliberately conservative values adopted to ensure that they are applicable to the majority of possible contaminated sites and below which there is considered a low to negligible risk to identified human health receptors, i.e. there can be no harm. These values may be published Contaminated Land Exposure Assessment Model (CLEA) derived GAC's derived by a competent third party or the Environment Agency / DEFRA. It is imperative to the risk assessor to understand the uncertainties and limitations associated with these GAC's to ensure that they are used appropriately.

Where the adoption of a GAC is not appropriate, for instance when the intended land-use is at variance the CLEA standard land-uses or the contaminant is susceptible to wide variation depending on factors such as form and bioavailability, then a Detailed Quantitative Risk Assessment (DQRA) may be undertaken to develop site specific or remediation values for relevant soil contaminants based on site and contaminant specific conditions.

In 2014, the publication of Category 4 Screening Levels (C4SL), refs 1.8 and 1.9, as part of the Defra-funded research project SP1010, included modifications to certain exposure assumptions documented within EA Science Report SC050221/SR3 (herein after referred to as SR3) ref 1.7 used in the generation of SGVs. C4SL were published for six substances (cadmium, arsenic, benzene, benzo(a)pyrene, chromium VI and lead) for a sandy loam soil type with 6% soil organic matter, based on a low level of toxicological concern. Where a C4SL has been published, Soils Limited has adopted them as GAC for these six substances.

For all other substances the soils will be compared to Suitable For Use Levels (S4ULs) published by LQM, ref. 1.10, which were developed for around 85 substances and are

intended to enable a screening assessment of the risks posed by soil quality on development sites. The updated LQM/CIEH GAC publication was developed to accommodate recent developments in the understanding of chemical, toxicological and routine exposure to soil-based contaminants.

Where no S4UL or C4SL is available, assessment criteria may be generated using the Contaminated Land Exposure Assessment (CLEA) Software Version 1.07, ref. 1.11, Toxicological and physico-chemical/fate and transport data used to generate the criteria has been derived from a hierarchy of data sources as follows:

1. Environment Agency or Department of Environment Food and Rural Affairs (DEFRA) documents;
2. Other documents produced by UK Government or state organisations;
3. European institution documents;
4. International organisation documents;
5. Foreign government institutions.

In the case of the majority of contaminants considered, the toxicological data has been drawn originally from the relevant CLR 9 TOX report, or updated toxicological data published by the Environment Agency (2009), where available. Where no TOX report is available reference has been made to appropriately determined health criteria values, derived from the above-noted hierarchy, as this is considered to represent appropriate peer reviewed data sources. Similarly, fate and transport data should also be determined by reference to appropriate sources and the CLEA model assumptions.

Chemical laboratory test results are processed as follows. A statistical analysis of the results is conducted, as detailed in CIEH and CL:AIRE 'Guidance on Comparing Soil Contamination Data with a Critical Concentration', ref. 1.12. Individual concentrations are then compared to the selected guideline values to identify and isolate concentrations of contaminants that are in excess of the selected screening low or no risk criteria.

Where the risk estimation identifies significant concentrations of one or more contaminants, further risk evaluation needs to be undertaken often as a site specific DQRA in line with current guidance to determine and confirm if the identified exceedances are significant in the context of the proposed development or activity.

## References

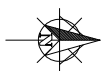
- 1.1 The Environmental Protection Act, Part IIA, Section 78, DoE 1990.
- 1.2 Environment Act 1995, Section 57, DoE 1995.
- 1.3 Environment Act 2021 OEP 2021.
- 1.4 Land Contamination Risk Management Gov.UK (EA) 2021
- 1.5 BS 10175: 2011+A2:2017 '*Investigation of potentially contaminated sites. Code of practice*', British Standards Institute, 2017
- 1.6 BS 5930: 2015+A1:2020 '*Code of practice for ground investigations*', British Standards Institute, 2015
- 1.7 Science Report SC050021/SR3 '*Updated technical background to the CLEA model*', Environment Agency, 2008
- 1.8 DEFRA SP1010: Development of Category 4 Screening Levels for the Assessment of Land Affected by Contamination, published March 2014.
- 1.9 Contaminated Land: Applications in Real Environment (CL:AIRE) (2014). '*Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination*', Revision 2, DEFRA research project SP1010.
- 1.10 The LQM/S4ULs for Human Health Risk Assessment, Nathanail P, McCaffery C, Gillett A, Ogden R, and Nathanail J, Land Quality Press, Nottingham, published 2015.
- 1.11 CLEA '*Software Version 1.071*' (downloaded from the CL:AIRE website , <https://www.claire.co.uk/home/news/44-risk-assessment/178-soil-guideline-values> )
- 1.12 CIEH '*Guidance on Comparing Soil Contamination Data with a Critical Concentration*', Chartered Institute of Environmental Health (CIEH) and Contaminated Land: Applications in Real Environments (CL:AIRE), May 2008.

| Land Use                         |                      |           | Residential With or Without Plant Uptake |       |        |         |         |       |            |        |           | Public Open Space (POS) |         |         |             |        |                     |                     |        |        |                     |                     | Name                | Authority | Date |
|----------------------------------|----------------------|-----------|------------------------------------------|-------|--------|---------|---------|-------|------------|--------|-----------|-------------------------|---------|---------|-------------|--------|---------------------|---------------------|--------|--------|---------------------|---------------------|---------------------|-----------|------|
|                                  |                      |           | With                                     |       |        | Without |         |       | Allotments |        |           | Commercial              |         |         | Residential |        |                     | Park                |        |        |                     |                     |                     |           |      |
|                                  |                      |           | SOM                                      | 1.0   | 2.5    | 6       | 1       | 2.5   |            |        |           |                         |         |         | 6           | 1      | 2.5                 | 6                   | 1      | 2.5    | 6                   | 1                   |                     |           |      |
| Type                             | Contaminants         | Species   | Year                                     |       |        |         |         |       |            |        |           |                         |         |         |             |        |                     |                     |        |        |                     |                     |                     |           |      |
| Metals                           | Antimony             |           | 2010                                     |       |        |         |         | 550   |            |        |           |                         |         | 7500    |             |        |                     |                     |        |        |                     | EIC/AGS/<br>CL:AIRE | EIC/AGS/<br>CL:AIRE | 2010      |      |
|                                  | Arsenic              |           | 2014                                     |       | 37     |         | 40      |       |            | 49     |           |                         | 640     |         | 79          |        | 168                 |                     |        |        | C4SL                | DEFRA               | 2014                |           |      |
|                                  |                      |           | 2015                                     |       | 37     |         | 40      |       |            | 40     |           |                         | 640     |         | 79          |        | 170                 |                     |        |        | S4UL                | LQM/CIEH            | 2015                |           |      |
|                                  | Barium               |           | 2010                                     |       |        |         |         | 1300  |            |        |           |                         |         | 22000   |             |        |                     |                     |        |        | EIC/AGS/<br>CL:AIRE | EIC/AGS/<br>CL:AIRE | 2010                |           |      |
|                                  | Beryllium            |           | 2015                                     |       | 1.7    |         | 1.7     |       |            | 35     |           |                         | 12      |         | 2.2         |        | 63                  |                     |        |        | S4UL                | LQM/CIEH            | 2015                |           |      |
|                                  | Boron                |           | 2015                                     |       | 290    |         | 11000   |       |            | 45     |           |                         | 240000  |         | 21000       |        | 46000               |                     |        |        | S4UL                | LQM/CIEH            | 2015                |           |      |
|                                  | Cadmium              |           | 2015                                     |       | 11     |         | 85      |       |            | 1.9    |           |                         | 190     |         | 120         |        | 532                 |                     |        |        | S4UL                | LQM/CIEH            | 2015                |           |      |
|                                  | Chromium             | III       | 2014                                     |       | 26     |         | 149     |       | 4.9        |        | 410       |                         | 220     |         | 880         |        | C4SL                | DEFRA               | 2014   |        |                     |                     |                     |           |      |
|                                  |                      |           | 2015                                     |       | 910    |         | 910     |       | 18000      |        | 8600      |                         | 1500    |         | 33000       |        | S4UL                | LQM/CIEH            | 2015   |        |                     |                     |                     |           |      |
|                                  |                      |           | VI                                       | 2014  |        | 21      |         | 21    |            | 170    |           | 49                      |         | 23      |             | 250    |                     | C4SL                | DEFRA  | 2014   |                     |                     |                     |           |      |
|                                  |                      | VI        | 2015                                     |       | 6      |         | 6       |       | 1.8        |        | 33        |                         | 7.7     |         | 220         |        | S4UL                | LQM/CIEH            | 2015   |        |                     |                     |                     |           |      |
|                                  | Copper               |           | 2015                                     |       | 2400   |         | 7100    |       | 520        |        | 68000     |                         | 12000   |         | 44000       |        | S4UL                | LQM/CIEH            | 2015   |        |                     |                     |                     |           |      |
|                                  | Lead                 |           | 2014*                                    |       | 82-210 |         | 130-310 |       | 30-84      |        | 1100-6000 |                         | 270-760 |         | 580-1400    |        | C4SL                | DEFRA               | 2014   |        |                     |                     |                     |           |      |
|                                  | Mercury              | Elemental | 2012                                     |       | 1.0    |         | 1.0     |       | 26         |        | 26        |                         |         |         | 210         |        | DEFRA               | 2012                |        |        |                     |                     |                     |           |      |
|                                  |                      |           | 2015                                     |       | 1.2    |         | 1.2     |       | 21         |        | 58        |                         | 16      |         | 30          |        | S4UL                | LQM/CIEH            | 2015   |        |                     |                     |                     |           |      |
|                                  |                      | Inorganic | 2012                                     |       | 170    |         | 170     |       | 80         |        | 36000     |                         |         |         | SGV         | DEFRA  | 2012                |                     |        |        |                     |                     |                     |           |      |
|                                  |                      |           | 2015                                     |       | 40     |         | 56      |       | 19         |        | 1100      |                         | 120     |         | 240         |        | S4UL                | LQM/CIEH            | 2015   |        |                     |                     |                     |           |      |
|                                  |                      | Methyl    | 2012                                     |       | 11     |         | 11      |       | 8          |        | 410       |                         |         |         | SGV         | DEFRA  | 2012                |                     |        |        |                     |                     |                     |           |      |
|                                  |                      |           | 2015                                     |       | 11     |         | 15      |       | 6          |        | 320       |                         | 40      |         | 68          |        | S4UL                | LQM/CIEH            | 2015   |        |                     |                     |                     |           |      |
|                                  | Molybdenum           |           | 2010                                     |       |        |         |         | 670   |            |        |           |                         | 17000   |         |             |        | EIC/AGS/<br>CL:AIRE | EIC/AGS/<br>CL:AIRE | 2010   |        |                     |                     |                     |           |      |
|                                  | Nickel               |           | 2012                                     |       | 130    |         | 130     |       | 230        |        | 1800      |                         |         |         | SGV         | DEFRA  | 2012                |                     |        |        |                     |                     |                     |           |      |
|                                  |                      |           | 2015                                     |       | 130    |         | 180     |       | 53         |        | 980       |                         | 230     |         | 800         |        | S4UL                | LQM/CIEH            | 2015   |        |                     |                     |                     |           |      |
|                                  | Selenium             |           | 2012                                     |       | 350    |         | 595     |       | 120        |        | 13000     |                         |         |         | SGV         | DEFRA  | 2012                |                     |        |        |                     |                     |                     |           |      |
|                                  |                      |           | 2015                                     |       | 250    |         | 430     |       | 88         |        | 12000     |                         | 1100    |         | 1800        |        | S4UL                | LQM/CIEH            | 2015   |        |                     |                     |                     |           |      |
|                                  | Vanadium             |           | 2015                                     |       | 410    |         | 1200    |       | 91         |        | 9000      |                         | 2000    |         | 5000        |        | S4UL                | LQM/CIEH            | 2015   |        |                     |                     |                     |           |      |
|                                  | Zinc                 |           | 2015                                     |       | 3700   |         | 40000   |       | 620        |        | 730000    |                         | 81000   |         | 170000      |        | S4UL                | LQM/CIEH            | 2015   |        |                     |                     |                     |           |      |
| BTEX & MTBE                      | Benzene              |           | 2012                                     |       | 0.33   |         | 0.33    |       | 0.07       |        | 95        |                         |         | SGV     | DEFRA       | 2012   |                     |                     |        |        |                     |                     |                     |           |      |
|                                  |                      |           | 2014                                     |       | 0.87   |         | 3.3     |       | 0.18       |        | 98        |                         | 140     |         | 230         |        | C4SL                | DEFRA               | 2014   |        |                     |                     |                     |           |      |
|                                  |                      |           | 2015                                     | 0.087 | 0.17   | 0.37    | 0.38    | 0.7   | 1.4        | 0.017  | 0.034     | 0.075                   | 27      | 47      | 90          | 72     | 72                  | 73                  | 90     | 100    | 110                 | S4UL                | LQM/CIEH            | 2015      |      |
|                                  | Toluene              |           | 2012                                     |       | 610    |         | 610     |       | 120        |        | 4400      |                         |         |         | SGV         | DEFRA  | 2012                |                     |        |        |                     |                     |                     |           |      |
|                                  |                      |           | 2015                                     | 130   | 290    | 660     | 880     | 1900  | 3900       | 22     | 51        | 120                     | 56000   | 110000  | 180000      | 56000  | 56000               | 56000               | 87000  | 95000  | 100000              | S4UL                | LQM/CIEH            | 2015      |      |
|                                  | Ethylbenzene         |           | 2012                                     |       | 350    |         | 350     |       | 90         |        | 2800      |                         |         |         | SGV         | DEFRA  | 2012                |                     |        |        |                     |                     |                     |           |      |
|                                  |                      |           | 2015                                     | 47    | 110    | 260     | 83      | 190   | 440        | 16     | 39        | 91                      | 5700    | 13000   | 27000       | 24000  | 24000               | 25000               | 17000  | 22000  | 27000               | S4UL                | LQM/CIEH            | 2015      |      |
|                                  | Xylenes              | o-xylene  | 2012                                     |       | 250    |         | 250     |       | 160        |        | 2600      |                         |         |         | SGV         | DEFRA  | 2012                |                     |        |        |                     |                     |                     |           |      |
|                                  |                      |           | 2015                                     | 60    | 140    | 330     | 88      | 210   | 480        | 28     | 67        | 160                     | 6600    | 15000   | 33000       | 41000  | 42000               | 43000               | 17000  | 24000  | 33000               | S4UL                | LQM/CIEH            | 2015      |      |
|                                  |                      | m-xylene  | 2012                                     |       | 240    |         | 240     |       | 180        |        | 3500      |                         |         |         | SGV         | DEFRA  | 2012                |                     |        |        |                     |                     |                     |           |      |
| 2015                             |                      |           | 59                                       | 140   | 320    | 82      | 190     | 450   | 31         | 74     | 170       | 6200                    | 14000   | 31000   | 41000       | 42000  | 43000               | 17000               | 24000  | 32000  | S4UL                | LQM/CIEH            | 2015                |           |      |
|                                  | p-xylene             | 2012      |                                          | 230   |        | 230     |         | 160   |            | 3200   |           |                         |         | SGV     | DEFRA       | 2012   |                     |                     |        |        |                     |                     |                     |           |      |
|                                  |                      | 2015      | 56                                       | 130   | 310    | 79      | 180     | 430   | 29         | 69     | 160       | 5900                    | 14000   | 30000   | 41000       | 42000  | 43000               | 17000               | 23000  | 31000  | S4UL                | LQM/CIEH            | 2015                |           |      |
| Petroleum Hydrocarbons Fractions | Aliphatic >C5 - C6   |           | 2015                                     | 42    | 78     | 160     | 42      | 78    | 160        | 730    | 1700      | 3900                    | 3200    | 5900    | 12000       | 570000 | 590000              | 600000              | 95000  | 5900   | 12000               | S4UL                | LQM/CIEH            | 2015      |      |
|                                  | Aliphatic >C6 - C8   |           | 2015                                     | 100   | 230    | 530     | 100     | 230   | 530        | 2300   | 5600      | 13000                   | 7800    | 17000   | 40000       | 600000 | 610000              | 620000              | 150000 | 17000  | 40000               | S4UL                | LQM/CIEH            | 2015      |      |
|                                  | Aliphatic >C8 - C10  |           | 2015                                     | 27    | 65     | 150     | 27      | 65    | 150        | 320    | 770       | 1700                    | 2000    | 4800    | 11000       | 13000  | 13000               | 13000               | 14000  | 4800   | 11000               | S4UL                | LQM/CIEH            | 2015      |      |
|                                  | Aliphatic >C10 - C12 |           | 2015                                     | 130   | 330    | 760     | 130     | 330   | 770        | 2200   | 4400      | 7300                    | 9700    | 23000   | 47000       | 13000  | 13000               | 13000               | 21000  | 23000  | 47000               | S4UL                | LQM/CIEH            | 2015      |      |
|                                  | Aliphatic >C12 - C16 |           | 2015                                     | 1100  | 2400   | 4300    | 1100    | 2400  | 4400       | 11000  | 13000     | 13000                   | 59000   | 82000   | 90000       | 13000  | 13000               | 13000               | 25000  | 82000  | 90000               | S4UL                | LQM/CIEH            | 2015      |      |
|                                  | Aliphatic >C16 - C35 |           | 2015                                     | 65000 | 92000  | 110000  | 65000   | 92000 | 110000     | 260000 | 270000    | 270000                  | 1600000 | 1700000 | 1800000     | 250000 | 250000              | 250000              | 450000 | 170000 | 180000              | S4UL                | LQM/CIEH            | 2015      |      |
|                                  | Aliphatic >C35 - C44 |           | 2015                                     | 65000 | 92000  | 140000  | 65000   | 92000 | 110000     | 260000 | 270000    | 270000                  | 1600000 | 1700000 | 1800000     | 250000 | 250000              | 250000              | 450000 | 170000 | 180000              | S4UL                | LQM/CIEH            | 2015      |      |
|                                  |                      |           |                                          |       |        |         |         |       |            |        |           |                         |         |         |             |        |                     |                     |        |        |                     |                     |                     |           |      |
|                                  | Aromatic >C5 - C7    |           | 2015                                     | 70    | 140    | 300     | 370     | 690   | 1400       | 13     | 27        | 57                      | 26000   | 46000   | 86000       | 56000  | 56000               | 56000               | 76000  | 84000  | 92000               | S4UL                | LQM/CIEH            | 2015      |      |
|                                  | Aromatic >C7 - C8    |           | 2015                                     | 130   | 290    | 660     | 860     | 1800  | 3900       | 22     | 51        | 120                     | 56000   | 110000  | 180000      | 56000  | 56000               | 56000               | 87000  | 95000  | 100000              | S4UL                | LQM/CIEH            | 2015      |      |

| Land Use                                             |                                                                |         | Residential With or Without Plant Uptake |         |         |         |         |       |            |         |        | Public Open Space (POS) |        |        |             |        |        |        |        |        | Name   | Authority | Date     |      |
|------------------------------------------------------|----------------------------------------------------------------|---------|------------------------------------------|---------|---------|---------|---------|-------|------------|---------|--------|-------------------------|--------|--------|-------------|--------|--------|--------|--------|--------|--------|-----------|----------|------|
|                                                      |                                                                |         | With                                     |         |         | Without |         |       | Allotments |         |        | Commercial              |        |        | Residential |        |        | Park   |        |        |        |           |          |      |
|                                                      |                                                                |         | SOM                                      | 1.0     | 2.5     | 6       | 1       | 2.5   |            |         |        |                         |        |        | 6           | 1      | 2.5    | 6      | 1      | 2.5    |        |           |          | 6    |
| Type                                                 | Contaminants                                                   | Species | Year                                     |         |         |         |         |       |            |         |        |                         |        |        |             |        |        |        |        |        |        |           |          |      |
|                                                      | Aromatic >C8 - C10                                             |         | 2015                                     | 34      | 83      | 190     | 47      | 110   | 270        | 8.6     | 21     | 51                      | 3500   | 8100   | 17000       | 5000   | 5000   | 5000   | 7200   | 8500   | 9200   | S4UL      | LQM/CIEH | 2015 |
|                                                      | Aromatic >C10 - C12                                            |         | 2015                                     | 74      | 180     | 380     | 250     | 590   | 1200       | 13      | 31     | 74                      | 16000  | 28000  | 34000       | 5000   | 5000   | 5000   | 9200   | 9700   | 10000  | S4UL      | LQM/CIEH | 2015 |
|                                                      | Aromatic >C12 - C16                                            |         | 2015                                     | 140     | 330     | 660     | 1800    | 2300  | 2500       | 23      | 57     | 130                     | 36000  | 37000  | 38000       | 5100   | 5100   | 5000   | 10000  | 10000  | 10000  | S4UL      | LQM/CIEH | 2015 |
|                                                      | Aromatic >C16 - C21                                            |         | 2015                                     | 260     | 540     | 930     | 1900    | 1900  | 1900       | 46      | 110    | 260                     | 28000  | 28000  | 28000       | 3800   | 3800   | 3800   | 7600   | 7700   | 7800   | S4UL      | LQM/CIEH | 2015 |
|                                                      | Aromatic >C21 - C35                                            |         | 2015                                     | 1100    | 1500    | 1700    | 1900    | 1900  | 1900       | 370     | 820    | 1600                    | 28000  | 28000  | 28000       | 3800   | 3800   | 3800   | 7800   | 7800   | 7900   | S4UL      | LQM/CIEH | 2015 |
|                                                      | Aromatic >C34 - C44                                            |         | 2015                                     | 1100    | 1500    | 1700    | 1900    | 1900  | 1900       | 370     | 820    | 1600                    | 28000  | 28000  | 28000       | 3800   | 3800   | 3800   | 7800   | 7800   | 7900   | S4UL      | LQM/CIEH | 2015 |
|                                                      | Aliphatic + Aromatic >C44 - C70                                |         |                                          | 1600    | 1800    | 1900    | 1900    | 1900  | 1900       | 1200    | 2100   | 3000                    | 28000  | 28000  | 28000       | 3800   | 28000  | 28000  | 7800   | 7800   | 7900   | S4UL      | LQM/CIEH | 2015 |
| Polycyclic Aromatic Hydrocarbons<br>(PAH' s) (mg/kg) | Acenaphthene                                                   |         | 2015                                     | 210     | 510     | 1100    | 3000    | 4700  | 6000       | 34      | 85     | 200                     | 84000  | 97000  | 100000      | 15000  | 15000  | 15000  | 29000  | 29000  | 29000  | S4UL      | LQM/CIEH | 2015 |
|                                                      | Acenaphthylene                                                 |         | 2015                                     | 170     | 420     | 920     | 2900    | 4600  | 6000       | 28      | 69     | 160                     | 83000  | 97000  | 100000      | 15000  | 15000  | 15000  | 29000  | 29000  | 29000  | S4UL      | LQM/CIEH | 2015 |
|                                                      | Anthracene                                                     |         | 2015                                     | 2400    | 5400    | 11000   | 31000   | 35000 | 37000      | 380     | 950    | 2200                    | 520000 | 54000  | 540000      | 74000  | 74000  | 74000  | 150000 | 150000 | 150000 | S4UL      | LQM/CIEH | 2015 |
|                                                      | Benzo(a)anthracene                                             |         | 2015                                     | 7.2     | 11      | 13      | 11      | 14    | 15         | 2.9     | 6.5    | 13                      | 170    | 170    | 180         | 29     | 29     | 29     | 49     | 56     | 62     | S4UL      | LQM/CIEH | 2015 |
|                                                      | Benzo(a)pyrene                                                 |         | 2014                                     |         |         | 5       |         |       | 5.3        |         |        | 5.7                     |        |        | 76          |        |        | 10     |        | 21     | C4SL   | DEFRA     | 2014     |      |
|                                                      |                                                                |         | 2015                                     | 2.2     | 2.7     | 3       | 3.2     | 3.2   | 3.2        | 0.79    | 2      | 3.5                     | 35     | 35     | 36          | 5.7    | 5.7    | 5.7    | 11     | 12     | 13     | S4UL      | LQM/CIEH | 2015 |
|                                                      | Benzo(b)fluoranthene                                           |         | 2015                                     | 2.6     | 3.3     | 3.7     | 3.9     | 4.0   | 4.0        | 0.99    | 2.1    | 3.9                     | 44     | 44     | 45          | 7.1    | 7.2    | 7.2    | 13     | 15     | 16     | S4UL      | LQM/CIEH | 2015 |
|                                                      | Benzo(ghi)perylene                                             |         | 2015                                     | 320     | 340     | 350     | 360     | 360   | 360        | 290     | 470    | 640                     | 3900   | 4000   | 4000        | 640    | 640    | 640    | 1400   | 1500   | 1600   | S4UL      | LQM/CIEH | 2015 |
|                                                      | Benzo(k)fluoranthene                                           |         | 2015                                     | 77      | 93      | 100     | 110     | 110   | 110        | 37      | 75     | 130                     | 1200   | 1200   | 1200        | 190    | 190    | 190    | 370    | 410    | 440    | S4UL      | LQM/CIEH | 2015 |
|                                                      | Chrysene                                                       |         | 2015                                     | 15      | 22      | 27      | 30      | 31    | 32         | 4.1     | 9.4    | 19                      | 350    | 350    | 350         | 57     | 57     | 57     | 93     | 110    | 120    | S4UL      | LQM/CIEH | 2015 |
|                                                      | Dibenz(a,h)anthracene                                          |         | 2015                                     | 0.24    | 0.28    | 0.3     | 0.31    | 0.32  | 0.32       | 0.14    | 0.27   | 0.43                    | 3.5    | 3.6    | 3.6         | 0.57   | 0.57   | 0.58   | 1.1    | 1.3    | 1.4    | S4UL      | LQM/CIEH | 2015 |
|                                                      | Fluoranthene                                                   |         | 2015                                     | 280     | 560     | 890     | 1500    | 1600  | 1600       | 52      | 130    | 290                     | 23000  | 23000  | 23000       | 3100   | 3100   | 3100   | 6300   | 6300   | 6400   | S4UL      | LQM/CIEH | 2015 |
|                                                      | Fluorene                                                       |         | 2015                                     | 170     | 400     | 860     | 2800    | 3800  | 4500       | 27      | 67     | 160                     | 63000  | 68000  | 71000       | 9900   | 9900   | 9900   | 20000  | 20000  | 20000  | S4UL      | LQM/CIEH | 2015 |
|                                                      | Indeno(1,2,3-cd)pyrene                                         |         | 2015                                     | 27      | 36      | 41      | 45      | 46    | 46         | 9.5     | 21     | 39                      | 500    | 510    | 510         | 82     | 82     | 82     | 150    | 170    | 180    | S4UL      | LQM/CIEH | 2015 |
|                                                      | Naphthalene                                                    |         | 2015                                     | 2.3     | 5.6     | 13      | 2.3     | 5.6   | 13         | 4.1     | 10     | 24                      | 190    | 460    | 1100        | 4900   | 4900   | 4900   | 1200   | 1900   | 3000   | S4UL      | LQM/CIEH | 2015 |
|                                                      | Phenanthrene                                                   |         | 2015                                     | 95      | 220     | 440     | 1300    | 1500  | 1500       | 15      | 38     | 90                      | 22000  | 22000  | 23000       | 3100   | 3100   | 3100   | 6200   | 6200   | 6300   | S4UL      | LQM/CIEH | 2015 |
|                                                      | Pyrene                                                         |         | 2015                                     | 620     | 1200    | 2000    | 3700    | 3800  | 3800       | 110     | 270    | 620                     | 54000  | 54000  | 54000       | 7400   | 7400   | 7400   | 15000  | 15000  | 15000  | S4UL      | LQM/CIEH | 2015 |
|                                                      | Coal Tar (Bap as surrogate matter)                             |         | 2015                                     | 0.79    | 0.98    | 1.1     | 1.2     | 1.2   | 1.2        | 0.32    | 0.67   | 1.2                     | 15     | 15     | 15          | 2.2    | 2.2    | 2.2    | 4.4    | 4.7    | 4.8    | S4UL      | LQM/CIEH | 2015 |
| Chloroalkanes & alkenes                              | 1,2 Dichloroethane                                             |         | 2015                                     | 0.0071  | 0.011   | 0.019   | 0.0092  | 0.013 | 0.023      | 0.0046  | 0.0083 | 0.016                   | 0.67   | 0.97   | 1.7         | 29     | 29     | 29     | 21     | 24     | 28     | S4UL      | LQM/CIEH | 2015 |
|                                                      | 1,1,1 Trichloroethane                                          |         | 2015                                     | 8.8     | 18      | 39      | 9       | 18    | 40         | 48      | 110    | 240                     | 660    | 1300   | 3000        | 140000 | 140000 | 140000 | 57000  | 76000  | 100000 | S4UL      | LQM/CIEH | 2015 |
|                                                      | 1,1,2,2 Tetrachloroethane                                      |         | 2015                                     | 1.6     | 3.4     | 7.5     | 3.9     | 8     | 17         | 0.41    | 0.89   | 2                       | 270    | 550    | 1100        | 1400   | 1400   | 1400   | 1800   | 2100   | 2300   | S4UL      | LQM/CIEH | 2015 |
|                                                      | 1,1,1,2 Tetrachloroethane                                      |         | 2015                                     | 1.2     | 2.8     | 6.4     | 1.5     | 3.5   | 8.2        | 0.79    | 1.9    | 4.4                     | 110    | 250    | 560         | 1400   | 1400   | 1400   | 1500   | 1800   | 2100   | S4UL      | LQM/CIEH | 2015 |
|                                                      | Tetrachloroethene (PCE)                                        |         | 2015                                     | 0.18    | 0.39    | 0.9     | 0.18    | 0.4   | 0.92       | 0.65    | 1.5    | 3.6                     | 19     | 42     | 95          | 1400   | 1400   | 1400   | 810    | 1100   | 1500   | S4UL      | LQM/CIEH | 2015 |
|                                                      |                                                                |         | 2021                                     | 0.31    | 0.7     | 1.6     | 0.32    | 0.71  | 1.6        | 2       | 4.8    | 11                      | 24     | 55     | 130         | 3200   | 3300   | 3400   | 1400   | 1900   | 2500   | C4SL      | CLAIRE   | 2021 |
|                                                      | Tetrachloromethane (Carbon Tetrachloride)                      |         | 2015                                     | 0.026   | 0.056   | 0.13    | 0.026   | 0.056 | 0.13       | 0.45    | 1      | 2.4                     | 2.9    | 6.3    | 14          | 890    | 920    | 950    | 190    | 270    | 400    | S4UL      | LQM/CIEH | 2015 |
|                                                      | Trichloroethene (TCE)                                          |         | 2015                                     | 0.016   | 0.034   | 0.075   | 0.017   | 0.036 | 0.08       | 0.041   | 0.091  | 0.21                    | 1.2    | 2.6    | 5.7         | 120    | 120    | 120    | 70     | 91     | 120    | S4UL      | LQM/CIEH | 2015 |
|                                                      |                                                                |         | 2021                                     | 0.0093  | 0.02    | 0.043   | 0.0097  | 0.02  | 0.045      | 0.032   | 0.072  | 0.16                    | 0.73   | 1.5    | 3.4         | 76     | 78     | 79     | 41     | 54     | 69     | C4SL      | CLAIRE   | 2021 |
|                                                      | Trichloromethane (Chloroform)                                  |         | 2015                                     | 0.91    | 1.7     | 3.4     | 1.2     | 2.1   | 4.2        | 0.42    | 0.83   | 1.7                     | 99     | 170    | 350         | 2500   | 2500   | 2500   | 2600   | 2800   | 3100   | S4UL      | LQM/CIEH | 2015 |
|                                                      | Vinyl Chloride (Cloroethene)                                   |         | 2015                                     | 0.00064 | 0.00087 | 0.0014  | 0.00077 | 0.001 | 0.0015     | 0.00055 | 0.001  | 0.0018                  | 0.059  | 0.077  | 0.12        | 3.5    | 3.5    | 3.5    | 4.8    | 5      | 5.4    | S4UL      | LQM/CIEH | 2015 |
|                                                      |                                                                |         | 2021                                     | 0.0064  | 0.01    | 0.017   | 0.015   | 0.019 | 0.029      | 0.0017  | 0.0031 | 0.0058                  | 1.1    | 1.4    | 2.2         | 7.8    | 7.8    | 7.8    | 18     | 19     | 19     | C4SL      | CLAIRE   | 2021 |
| Explosives                                           | 2,4,6 Trinitrotoluene                                          |         | 2015                                     | 1.6     | 3.7     | 8.1     | 65      | 66    | 66         | 0.24    | 0.58   | 1.4                     | 1000   | 1000   | 1000        | 130    | 130    | 130    | 260    | 270    | 270    | S4UL      | LQM/CIEH | 2015 |
|                                                      | RDX (Hexogen/Cyclonite/1,3,5-trinitro-1,3,5-triazacyclohexane) |         | 2015                                     | 120     | 250     | 540     | 13000   | 13000 | 13000      | 17      | 38     | 85                      | 210000 | 210000 | 210000      | 26000  | 26000  | 27000  | 49000  | 51000  | 53000  | S4UL      | LQM/CIEH | 2015 |
|                                                      | HMX (Octogen/1,3,5,7-tetrenitro-1,3,5,7-tetrazacyclo-octane)   |         | 2015                                     | 5.7     | 13      | 26      | 6700    | 6700  | 6700       | 0.86    | 1.9    | 3.9                     | 110000 | 110000 | 110000      | 13000  | 13000  | 13000  | 23000  | 23000  | 24000  | S4UL      | LQM/CIEH | 2015 |
| Pesticides                                           | Aldrin                                                         |         | 2015                                     | 5.7     | 6.6     | 7.1     | 7.3     | 7.4   | 7.5        | 3.2     | 6.1    | 9.6                     | 170    | 170    | 170         | 18     | 18     | 18     | 30     | 31     | 31     | S4UL      | LQM/CIEH | 2015 |
|                                                      | Dieldrin                                                       |         | 2015                                     | 0.97    | 2       | 3.5     | 7       | 7.3   | 7.4        | 0.17    | 0.41   | 0.96                    | 170    |        |             |        |        |        |        |        |        |           |          |      |

| Land Use                                                                                                                                                                 |                                            |                                                                                                                                                                                  | Residential With or Without Plant Uptake |      |      |                            |      |      |             |      |      | Allotments |      |       | Commercial |       |       | Public Open Space (POS) |       |       |       |      |          |      |  |  | Name | Authority | Date |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------|------|----------------------------|------|------|-------------|------|------|------------|------|-------|------------|-------|-------|-------------------------|-------|-------|-------|------|----------|------|--|--|------|-----------|------|
|                                                                                                                                                                          |                                            |                                                                                                                                                                                  | With home-grown produce                  |      |      | Without home-grown produce |      |      | Residential |      |      |            |      |       |            |       |       | Park                    |       |       |       |      |          |      |  |  |      |           |      |
|                                                                                                                                                                          |                                            |                                                                                                                                                                                  | SOM                                      | 1.0  | 2.5  | 6                          | 1    | 2.5  | 6           | 1    | 2.5  | 6          | 1    | 2.5   | 6          | 1     | 2.5   | 6                       | 1     | 2.5   | 6     |      |          |      |  |  |      |           |      |
| Type                                                                                                                                                                     | Contaminants                               | Species                                                                                                                                                                          | Year                                     |      |      |                            |      |      |             |      |      |            |      |       |            |       |       |                         |       |       |       |      |          |      |  |  |      |           |      |
| Chlorobenzenes                                                                                                                                                           | Chlorobenzene                              |                                                                                                                                                                                  | 2015                                     | 0.46 | 1    | 2.4                        | 0.46 | 1    | 2.4         | 5.9  | 14   | 32         | 56   | 130   | 290        | 11000 | 13000 | 14000                   | 1300  | 2000  | 2900  | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
|                                                                                                                                                                          | 1,2-Dichlorobenzene                        |                                                                                                                                                                                  | 2015                                     | 23   | 55   | 130                        | 24   | 57   | 130         | 94   | 230  | 540        | 2000 | 4800  | 11000      | 90000 | 95000 | 98000                   | 24000 | 36000 | 51000 | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
|                                                                                                                                                                          | 1,3-Dichlorobenzene                        |                                                                                                                                                                                  | 2015                                     | 0.4  | 1    | 2.3                        | 0.44 | 1.1  | 2.5         | 0.25 | 0.6  | 1.5        | 30   | 73    | 170        | 300   | 300   | 300                     | 390   | 440   | 470   | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
|                                                                                                                                                                          | 1,4-Dichlorobenzene                        |                                                                                                                                                                                  | 2015                                     | 61   | 150  | 350                        | 61   | 150  | 350         | 15   | 37   | 88         | 4400 | 10000 | 25000      | 17000 | 17000 | 1700                    | 36000 | 36000 | 36000 | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
|                                                                                                                                                                          | 1,2,3,-Trichlorobenzene                    |                                                                                                                                                                                  | 2015                                     | 1.5  | 3.6  | 8.6                        | 1.5  | 3.7  | 8.8         | 4.7  | 12   | 28         | 102  | 250   | 590        | 1800  | 1800  | 1800                    | 770   | 1100  | 1600  | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
|                                                                                                                                                                          | 1,2,4,-Trichlorobenzene                    |                                                                                                                                                                                  | 2015                                     | 2.6  | 6.4  | 15                         | 2.6  | 6.4  | 15          | 55   | 140  | 320        | 220  | 530   | 1300       | 15000 | 17000 | 19000                   | 1700  | 2600  | 4000  | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
|                                                                                                                                                                          | 1,3,5,-Trichlorobenzene                    |                                                                                                                                                                                  | 2015                                     | 0.33 | 0.81 | 1.9                        | 0.33 | 0.81 | 1.9         | 4.7  | 12   | 28         | 23   | 55    | 130        | 1700  | 1700  | 1800                    | 380   | 580   | 860   | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
|                                                                                                                                                                          | 1,2,3,4,-Tetrachlorobenzene                |                                                                                                                                                                                  | 2015                                     | 15   | 36   | 78                         | 24   | 56   | 120         | 4.4  | 11   | 26         | 1700 | 3080  | 4400       | 830   | 830   | 830                     | 1500  | 1600  | 1600  | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
|                                                                                                                                                                          | 1,2,3,5,- Tetrachlobenzene                 |                                                                                                                                                                                  | 2015                                     | 0.66 | 1.6  | 3.7                        | 0.75 | 1.9  | 4.3         | 0.38 | 0.9  | 2.2        | 49   | 120   | 240        | 78    | 79    | 79                      | 110   | 120   | 130   | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
|                                                                                                                                                                          | 1,2,4, 5,- Tetrachlobenzene                |                                                                                                                                                                                  | 2015                                     | 0.33 | 0.77 | 1.6                        | 0.73 | 1.7  | 3.5         | 0.06 | 0.16 | 0.37       | 42   | 72    | 96         | 13    | 13    | 13                      | 25    | 26    | 26    | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
|                                                                                                                                                                          | Pentachlorobenzene                         |                                                                                                                                                                                  | 2015                                     | 5.8  | 12   | 22                         | 19   | 30   | 38          | 1.2  | 3.1  | 7          | 640  | 770   | 830        | 100   | 100   | 100                     | 190   | 190   | 190   | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
|                                                                                                                                                                          | Hexachlorobenzene                          |                                                                                                                                                                                  | 2015                                     | 1.8  | 3.3  | 4.9                        | 4.1  | 5.7  | 6.7         | 0.47 | 1.1  | 2.5        | 110  | 120   | 120        | 16    | 16    | 16                      | 30    | 30    | 30    | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
| Phenols & Chlorophenols                                                                                                                                                  |                                            |                                                                                                                                                                                  |                                          |      |      |                            |      |      |             |      |      |            |      |       |            |       |       |                         |       |       |       |      |          |      |  |  |      |           |      |
|                                                                                                                                                                          | Phenols                                    |                                                                                                                                                                                  | 2012                                     | 420  |      |                            | 420  |      |             | 280  |      |            | 3200 |       |            |       |       |                         |       |       |       | SGV  | DEFRA    | 2012 |  |  |      |           |      |
|                                                                                                                                                                          |                                            |                                                                                                                                                                                  | 2015                                     | 120  | 200  | 380                        | 440  | 690  | 1200        | 23   | 42   | 83         | 440  | 690   | 1300       | 440   | 690   | 1300                    | 440   | 690   | 1300  | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
|                                                                                                                                                                          | Chlorophenols (4 Congeners)                |                                                                                                                                                                                  | 2015                                     | 0.87 | 2    | 4.5                        | 94   | 150  | 210         | 0.13 | 0.3  | 0.7        | 3500 | 4000  | 4300       | 620   | 620   | 620                     | 1100  | 1100  | 1100  | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
| Others                                                                                                                                                                   | Pentachlorophenols                         |                                                                                                                                                                                  | 2015                                     | 0.22 | 0.52 | 1.2                        | 27   | 29   | 31          | 0.03 | 0.08 | 0.19       | 400  | 400   | 400        | 60    | 60    | 60                      | 110   | 120   | 120   | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
|                                                                                                                                                                          | Carbon Disulphide                          |                                                                                                                                                                                  | 2015                                     | 0.14 | 0.29 | 0.62                       | 0.14 | 0.29 | 0.62        | 4.8  | 10   | 23         | 11   | 22    | 47         | 11000 | 11000 | 12000                   | 1300  | 1900  | 2700  | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
|                                                                                                                                                                          | Hexachloro-1,3-Butadiene                   |                                                                                                                                                                                  | 2015                                     | 0.29 | 0.7  | 1.6                        | 0.32 | 0.78 | 1.8         | 0.25 | 0.61 | 1.4        | 31   | 66    | 120        | 25    | 25    | 25                      | 48    | 50    | 51    | S4UL | LQM/CIEH | 2015 |  |  |      |           |      |
|                                                                                                                                                                          | Sum of PCDDs, PCDFs and dioxin-like PCB's. |                                                                                                                                                                                  | 2012                                     | 8    |      |                            | 8    |      |             | 8    |      |            | 240  |       |            |       |       |                         |       |       |       | SGV  | DEFRA    | 2012 |  |  |      |           |      |
| NOTE                                                                                                                                                                     |                                            |                                                                                                                                                                                  |                                          |      |      |                            |      |      |             |      |      |            |      |       |            |       |       |                         |       |       |       |      |          |      |  |  |      |           |      |
|                                                                                                                                                                          | Priority                                   | Guideline (mg kg <sup>-1</sup> )                                                                                                                                                 |                                          |      |      |                            |      |      |             |      |      |            |      |       |            |       |       |                         |       |       |       |      |          |      |  |  |      |           |      |
|                                                                                                                                                                          | 1                                          | Site Specific Assessment Criteria (SSAC) (Soils Limited)                                                                                                                         |                                          |      |      |                            |      |      |             |      |      |            |      |       |            |       |       |                         |       |       |       |      |          |      |  |  |      |           |      |
|                                                                                                                                                                          | 2                                          | 2014: Category 4 Screening Level (C4SL) (Contaminated Land: Application in Real Environment (CL:ARE), 2014 and 2021) * Use upper range value for Lead unless otherwise indicated |                                          |      |      |                            |      |      |             |      |      |            |      |       |            |       |       |                         |       |       |       |      |          |      |  |  |      |           |      |
|                                                                                                                                                                          | 3                                          | 2012: Soil Guideline Value (SGV) (Environment Agency, 2009)                                                                                                                      |                                          |      |      |                            |      |      |             |      |      |            |      |       |            |       |       |                         |       |       |       |      |          |      |  |  |      |           |      |
|                                                                                                                                                                          | 4                                          | 2015: Suitable 4 Use Level (S4UL) (Nathanail et al, 2015)                                                                                                                        |                                          |      |      |                            |      |      |             |      |      |            |      |       |            |       |       |                         |       |       |       |      |          |      |  |  |      |           |      |
| For Generic Risk Assessment, the values in Bold should have priority unless site specific, Client or regulatory requirements dictate otherwise – which must be justified |                                            |                                                                                                                                                                                  |                                          |      |      |                            |      |      |             |      |      |            |      |       |            |       |       |                         |       |       |       |      |          |      |  |  |      |           |      |
| Table reviewed January 2024                                                                                                                                              |                                            |                                                                                                                                                                                  |                                          |      |      |                            |      |      |             |      |      |            |      |       |            |       |       |                         |       |       |       |      |          |      |  |  |      |           |      |

**Appendix F      Information Provided by the Client**



|                |                     |                 |          |
|----------------|---------------------|-----------------|----------|
| P001           | Issued for Planning | LO1             | 28/06/23 |
| P002           | Issued for Planning | LO1             | 31/05/23 |
| P003           | Issued for review   | LO1             | 17/05/23 |
| Row            | Description         | By              | Date     |
| Product Status |                     | Planning Status |          |
| Stage 3        |                     | Planning        |          |

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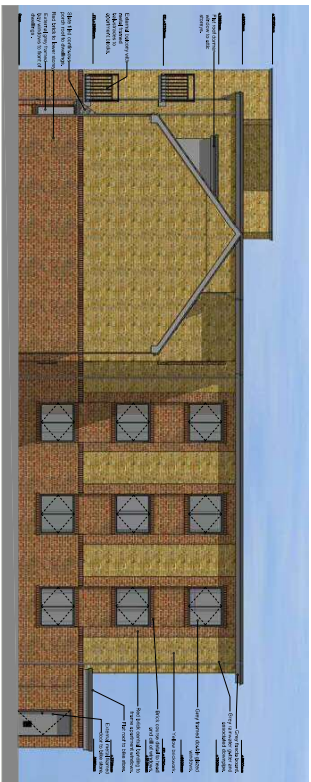
Clare / Project

Aspect (Eastleigh) Ltd  
Redevelopment of  
Samson's Gym

## PROPOSED SITE PLAN

|           |            |          |       |      |
|-----------|------------|----------|-------|------|
| Date      | 17/05/2022 | Scale    | 1:100 | @ A1 |
| 3D Co-Ord | EF         | Drawn By | LOJ   | EF   |

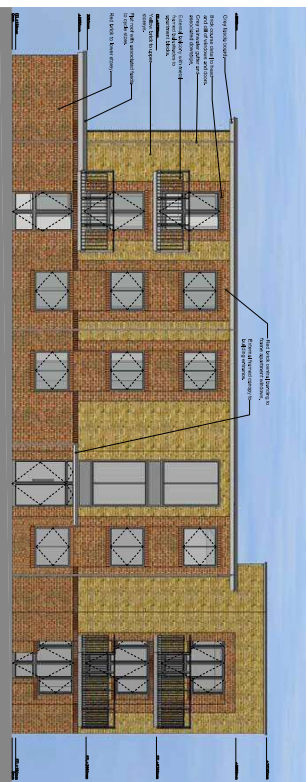




## West Elevation



South Elevation



East Elevation



North Elevation

|                     |          |
|---------------------|----------|
| Proposed Elevations |          |
| Date                | 12/05/23 |
| Drawn By            | LOJ      |
| Checked             | EF       |
| 1 : 100             | @ A1     |

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