



RIDGE

GEOTECHNICAL INVESTIGATION REPORT

ONE HORTON HEATH

EASTLEIGH BOROUGH COUNCIL

February 2023



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1. INTRODUCTION

1.1. Brief

Ridge and Partners LLP (Ridge) was commissioned by Eastleigh Borough Council to undertake an intrusive Ground Investigation and compile a Geotechnical Investigation Report (GIR) for a site comprising land near Horton Heath, Hampshire (hereafter referred to as 'the site'). A location plan is included as Figure 1.

The brief was to carry out a Geotechnical Ground Investigation to support the process of attaining detailed planning permission, highways adoption, detailed design and all necessary consents/ approvals up to a construction level of information for site wide infrastructure delivery for the development at One Horton Heath. Reference was made to 'One Horton Heath Site Wide Infrastructure Delivery Plan – Project Brief for Geotechnical Investigations – August 2022 v4' provided by Eastleigh Borough Council.

The main aim of the investigation was to provide geotechnical parameters for piled bridge abutments, under roads, footways and cycleways as well as infiltration testing for sustainable drainage systems. Earthworks and topsoil testing was also conducted to ascertain ground conditions and give recommendation on the suitability of materials for reuse.

The following reports have been reviewed in relation to this GIR:

- February 2019 – Desk Study Assessment (HHD-HYD-XX-XX-RP-GE-0001) – Hydrock
- April 2019 – Ground Investigation Report (HHD-HYD-XX-XXX-RP-GE-0002) - Hydrock

This report is prepared in line with the agreed brief and is subject to report conditions shown in Appendix 1.

The Ridge Ground Investigation comprised the following:

- 4no. cable percussive boreholes (BH01-BH04) were advanced to a target depth of 20.00mbgl. In-situ Standard Penetration Testing (SPT) was completed throughout the drilling. Positions were chosen by the client at each water crossing point.
- 45no. 1m deep trial pits advanced with an excavator to allow the collection of soil samples for laboratory remoulded soaked CBR testing. These locations are under proposed roads and footway/ cycleways.
- Six 2.5m deep trial pits advanced with an excavator to allow the collection of soil samples for Mineral Extraction Investigation.
- Eleven trial pits were advanced to a depth of 2.50m to allow Infiltration Testing and Groundwater Monitoring to be undertaken at each proposed Sustainable Drainage System (SuDS) location. Eleven Windowless Sampling Boreholes were advanced to a depth of 2.50m adjacent to Infiltration Testing location to allow in installation of 2.50m deep 50mm diameter groundwater monitoring installations.
- Geotechnical and contamination laboratory analysis.
- Subsequent monitoring of groundwater levels and gas monitoring in installed wells.

1.2. Proposals

Long-term proposals for the site include:

- The construction of up to 2,500 residential units.
- A local centre of mixed residential, retail, leisure, community and other associated units.
- Land and buildings of commercial and industrial uses
- A 3-form entry primary school
- Formal and informal public open space including formal sports facilities and landscaping.
- New link road which bypasses the existing village of Horton Heath.
- Alteration to an existing solar farm to accommodate the link road.
- All infrastructure associated with a development of this scale including new roads, footpaths and cycle paths and improvements to the existing road junctions.

1.3. Investigation Area

This phase of works comprised the investigation of the wider site. The investigation boundary is defined within Image 1 below.



Image 1: Investigation Area

1.4 Report Scope and Limitation

This report is based upon a review of readily available information and the recent Ground Investigation data detailed herein. The report presents an interpretation of the trial pit, borehole and laboratory data provided by the Ridge Ground Investigation undertaken between 17 and 28 October 2022. In addition, this report outlines the basic ground conditions encountered in the exploratory holes and the results of monitoring of installed wells.

This information has been collated, processed and used to provide an interpretation of the ground conditions, with recommendations on any contamination issues and geotechnical-related design.

The recommendations and opinions expressed in this report are based on the strata observed in the exploratory holes, the results of the site and laboratory tests, and information obtained as part of the desk study or provided by others. Ridge takes no responsibility for conditions that have not been revealed by the exploratory holes, or which occur between them or for features which may be more widespread to those found.

Whilst efforts have been made to interpret the conditions between investigation locations, such information is only indicative and liability cannot be accepted for its accuracy. Information provided from other sources is taken in good faith and Ridge cannot guarantee its accuracy.

The information contained in this report is intended for the use of **Eastleigh Borough Council** and Ridge can take no responsibility for the use of this information by any other party or for uses other than that described in this report.

2. SITE SETTING

2.1. Site Description

The site is centred on easting 449006 and northing 116986, situated at approximately 25mAOD (above ordnance datum) to the west of Horton Heath, Hampshire. The site consists of 325 acres of predominantly agricultural land adjacent to the village of Horton Heath.

2.2. Current Site Use

The site is currently used for arable and pastoral farming with Chalcroft Farm present in the south-west of the site. There are a number of residential properties in the vicinity of Chalcroft Farm and Fir Tree Lane within the site boundary. A solar farm is present in the middle of the site but is not part of the study area.

Chalcroft farm is currently not in operation although Owtons Butchers operates from the farm buildings.

The site is under the ownership of Eastleigh Borough Council.

2.3. Access

The site is accessed via field access gates off Chalcroft access lane and Fir Tree Lane.

2.4. Structures

Chalcroft Farm contains a number of structures including Owtons Butchers with associated butchery facility, shop and distribution centre. There are barns in the north of the farm which appear to be for hay storage as well as livestock shelter barns in the east. There are also a number of derelict residential properties in the vicinity of Chalcroft Farm.

2.5. Boundaries

The northern site boundary is defined by woodland off Allington Lane. The eastern boundary is defined by mature trees and vegetation in the north, a number of fence lines in the central east and Burnetts Lane and Bubb Lane in the south. The southern boundary of the site is defined by mature trees and fence line. The western boundary of the site is defined by mature trees and vegetation in the southern and central areas and by Allington Lane in the north.

2.6. Topography

The site is crossed by a number of surface water features which account for the lowest elevation. The general trend of the site is higher elevation to the north sloping downhill to the south. There is a ridge running east to west through the fields north of Fir Tree Lane. Fields south of Fir Tree lane slope downhill to the stream running north of the Solar Farm. The field to the west of Chalcroft farm slopes downhill to the west towards a stream along the western boundary. A shallow valley associated with the stream runs east to west south of the Solar Farm. A ridge was noted running east to west, west of the Solar Farm sloping downhill to the north and south.

2.7. Surroundings

The site is surrounded by the following:

- Northern boundary – Farmland and areas of woodland
- Eastern boundary – Sports ground and residential properties to the north. Residential properties to the centre and south.

- Southern boundary – Electrical substation to the east. Railway land and a small area of woodland and Chalcroft Business Park in the south-west.
- Western boundary – Woodland and agricultural land to the south. Residential properties and further agricultural land to the north.

2.8. Trees and Vegetation

Large mature trees are present across the site, predominantly along field boundaries where various mature trees and hedgerows are present. Woodland is present to the north and as a belt running east to west through the site.



3. PHYSICAL SETTING

3.1. Geology and Hydrogeology

The following observations are taken from the British Geological Survey (BGS) GeoIndex (2023). The GeoIndex indicates that the site is likely underlain by Bedrock Geology of the Bracklesham Group. The table below identifies the expected composition of the published strata and associated aquifer classification.

BEDROCK GEOLOGY	
Unit Name	Bracklesham Group
Geology Description	Interbedded to interlaminated clays, silts and mostly fine or medium-grained sands, locally shelly. Glauconite occurs in the mid part of the sequence. Minor coarse-grained sands, fine gravelly sand, gravel beds, sandstone or ironstone concretions occur in places
Aquifer Classification	Secondary (A)
Aquifer Description	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

Table 3.1: Geology and Hydrogeology

3.1.1. Artificial Ground, Landslips and Faults

There are no records within 100m of the site.

3.1.2. Radon

The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level. No Radon Protective Measures are considered necessary for new properties or extensions to existing ones.

4. PREVIOUS REPORTS

Two historical reports have been written in relation to the site:

- February 2019 – Desk Study Assessment (HHD-HYD-XX-XX-RP-GE-0001) - Hydrock
- April 2019 – Ground Investigation Report (HHD-HYD-XX-XXX-RP-GE-0002) - Hydrock

All available previous reports in relation to the site and immediate surroundings have been summarised in the Sections below.

4.1. Hydrock - Desk Study Assessment – February 2019

Hydrock were commissioned to undertake a Desk Study Assessment (HHD-HYD-XX-XX-RP-GE-0001) of the site with the objective of formulating a preliminary conceptual ground model of the site to identify key geo-environmental and geotechnical risk. The report findings are summarised below.

4.1.1. Natural Ground Subsidence

The BGS has provided the following information as summarised in the table below.

PROCESS	RISK LEVEL
Shrink Swell Clay	Moderate
Running Sands	Low
Collapsible Deposits	Very Low
Compressible Deposits	Very Low
Landslides	Very Low
Ground Dissolution of Soluble Rocks	Negligible

Table 4.1: Ground Subsidence

4.1.2. Hydrology

4.1.2.1. Surface Water Features

There are four unnamed streams on site as shown in Image 2. Stream 1 runs south to north along the western site boundary. Stream 2 flows from east to west across the centre of the site to the north of the solar farm converging with Stream 1 at the western boundary. Stream 3 flows east to west across the site south of the solar farm and also converges with Stream 1 at the western boundary. Stream 4 flows north-west to south-east across the north of the site. It originates from Quobleigh pond to the north of the site and converges with Stream 1 to the west of the site. There are three unnamed ponds; one to the north of the site, one located north of stream two and one located to the east of Chalcroft Farm.

The River Itchen is located 1.5km west of the site and all on-site streams converge and discharge into it.

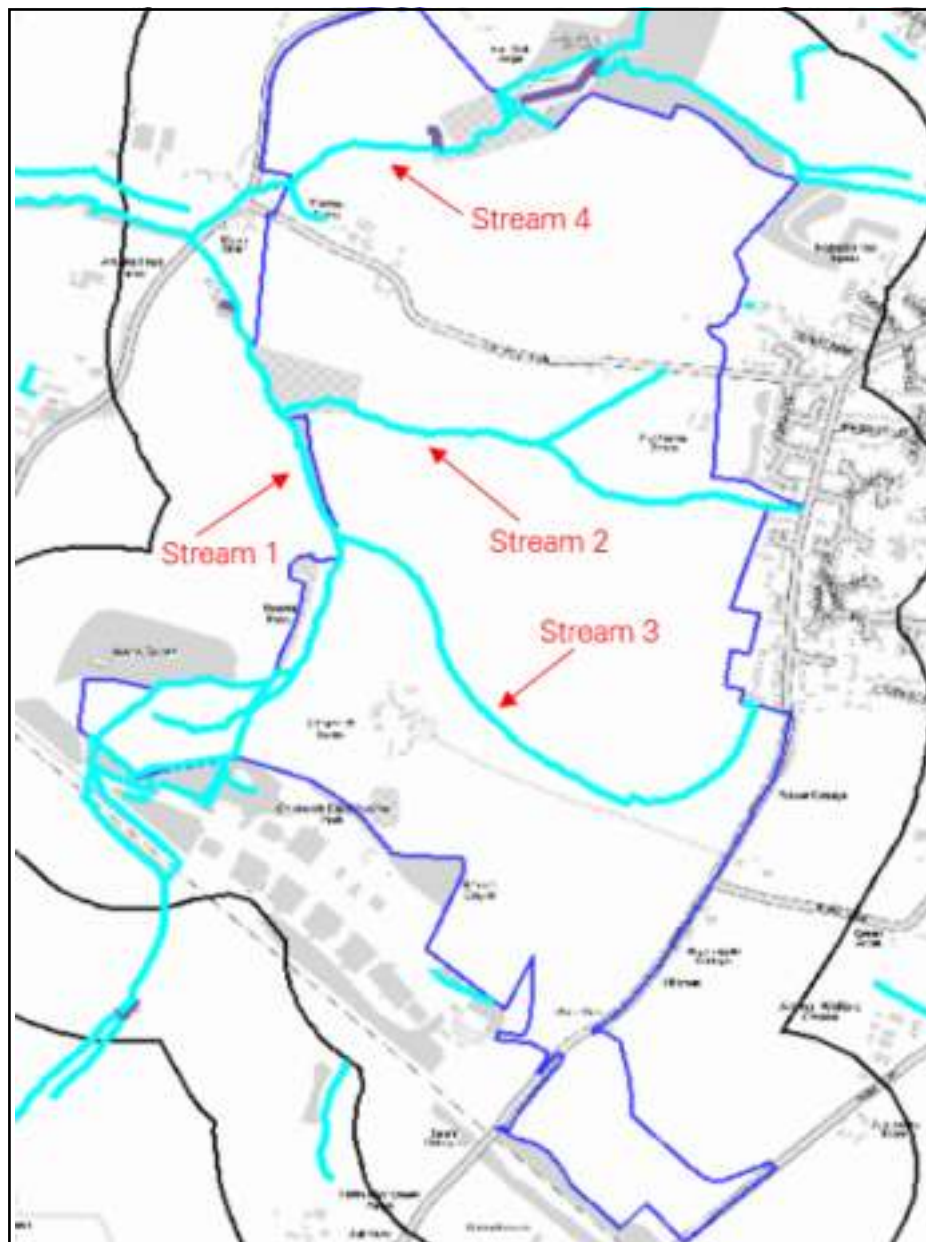


Image 2: Surface water feature map

4.1.2.2. Flooding

Low lying areas of the site in the vicinity of the surface water features are within Flood Zone 2 (medium/moderate probability of flooding) and Flood Zone 3 (high/significant probability of flooding). The rest of the site outside these areas are Flood Zone 1 with low risk of flooding.

4.1.3. Controlled Waters

4.1.3.1. Abstraction Licenses

There are no records of groundwater or surface (including potable) water abstractions in or within 1000m of the site boundary.

4.1.3.2. Source Protection Zones

The site is not within a groundwater Source Protection Zone (SPZ).

4.1.4. Geotechnical Conclusions

The following plausible geotechnical risks were identified by Hydrock:

- Made Ground of variable thickness and content - settlement or differential settlement of foundations, floor slabs, roads and infrastructure elements.
- Low strength, compressible ground – risk of shear failure and excessive settlement of foundations, roads and infrastructure elements.
- Attack of buried concrete by aggressive ground conditions – the ground beneath the proposed development site may contain Made Ground and, potentially, sulphate-bearing soils.
- Shrinkage/swelling of clay – settlement/heave of foundations, especially where located in the influence of trees and vegetation.
- Running sands, loose Made Ground and shallow groundwater, leading to difficulty with excavation and trench instability.
- Instability of slopes and its impact on foundations, floor slabs, roads and infrastructure and construction plant.
- Potential for obstructions and the risk of instability of excavations with the impact on construction staff, vehicles and plant operators.
- Earthworks – Low bearing capacity or settlement of new fill and impact on foundations, floor slabs, roads and infrastructure and construction plant.
- Potential for unforeseen ground conditions and the risks associated with insufficient data.

4.1.5. Geo-environmental Conclusions

Based on historical and current land use:

- It was considered unlikely that any part of the site could be classified as Contaminated Land under Part 2A of the EPA 1990.
- The overall risk from land contamination at the site was considered to be low for the existing site conditions due to the limited development of the site and the agricultural land use of the majority of the site.
- It was found that there may be limited areas of the site, such as around the farm hubs, including above ground and below ground fuel storage tanks which may present high risk from contamination. This would need to be confirmed by appropriate intrusive investigation, targeting and delineating these areas, with appropriate testing, monitoring and assessment of the results of the investigation.

The possible linkages for an un-remediated redeveloped site determined by the desk study and associated walk over produced risk level of moderate or greater. Therefore, the following recommendations were made.

4.1.6. Recommendation for further work

To confirm the actual risks to receptors and confirm the ground conditions with respect to potential geotechnical and geo-environmental risks, an appropriate intrusive investigation was recommended to be undertaken. This could take the form of a phased series of investigations, across the whole site or across defined parts of the site. It was recommended that the following investigation(s) would need to:

- determine the depth and distribution of Made Ground and natural strata across the site.
- determine the soil strength/density profile beneath the site.
- determine the depth/level of groundwater beneath the site.
- determine the ground gas concentrations beneath the site.

- determine CBRs to assist with pavement design.
- assess trench stability, over break potential and 'diggability'.
- allow soil infiltration rate testing.
- allow sampling for chemical and geotechnical laboratory testing.
- allow soil classification to allow geotechnical characterisation and determine suitability for reuse of soils within earthworks.
- obtain information in terms of Aggressive Chemical Environment for Concrete Class (ACEC Class).

Following investigation, assessment would be required to:

- update the Ground Model.
- update the Geotechnical Risk Register.
- provide Geotechnical Design recommendations.
- update the Conceptual Site Model (CSM), including identification of plausible pollution linkages; undertake generic quantitative risk assessment of potential chemical contaminants to establish 'suitability for use' under the current planning regime.
- discuss potential environmental liabilities associated with land contamination (soil, water and gas); and
- provide outline mitigation recommendations to ensure the site is 'suitable for use'.

4.2. Hydrock – Ground Investigation Report – April 2019

Hydrock conducted a ground investigation between 15th-23rd October 2018 with the objective of refining the Preliminary Conceptual Ground Model, determine preliminary geo-environmental and geotechnical site conditions and provide initial geotechnical recommendations. Below is the summary of the Ground Investigation report (HHD-HYD-XX-XXX-RP-GE-0002)

4.2.1. Geotechnical Conclusion

Obstructions associated with current development, including foundations, floor slabs and services, would be anticipated.

Excavation generally should be readily achievable with standard excavation plant. Heavy duty excavation plant/breaking equipment may be required to excavate the existing construction. Instability of excavations should be expected within the sands and gravels below the water table.

Water seepages into excavations are unlikely to be adequately controlled by sump pumping where sand horizons are present, alternative methods of dewatering may be required.

Foundations were recommended to comprise:

- Strip/trench fill foundations
- Piled foundations.

Allowable net bearing pressure of 100kN/m² would be available for strip/trench fill foundations. Deepening of foundations/heave protection was likely to be required to allow for the effects of trees.

Suspended floor slabs due to presence of high shrinkage potential clay soils.

A design CBR of 2.5% was recommended.

Soakaway drainage was considered unsuitable for this site, subject to further BRE365 compliant testing. Design Sulfate Class DS-1 and ACEC Class AC-1 for Head Deposits and River Terrace Deposits. DS-3 and ACEC Class AC-5 for Wittering Formation.

4.2.2. Geo-environmental Conclusions

For Human health and Plant growth no determinands were identified at concentrations above GAC.

No unacceptable risks were identified during Hydrock's preliminary investigation. Additional targeted investigation in the areas identified as potential sources of contamination was recommended (eg farm buildings, tanks etc).

Excavated soils to be disposed of as waste, were likely to be classed as non-hazardous or inert.

5. FIELDWORK

5.1. Site Management and Preparation

Suitably experienced Ridge staff supervised the intrusive investigation, which was undertaken between 17 and 28 October 2022. Methods employed during the investigation were carried out in general accordance with statutory guidance including BS5930:1999 *Code of Practice for Site Investigations (Amendment 3: 2015)* and BS10175:2011+A1:2013 *Investigation of Potentially Contaminated Sites: Code of Practice*.

5.2. Utility Clearance

Each test location was scanned with a Cable Avoidance Tool (CAT) prior to breaking ground, and any accessible manhole covers lifted to assess the location and direction of drainage runs. Utility plans were provided by Eastleigh Borough Council and were present on site for reference. Furthermore, each borehole was subject to a hand dug buried service inspection pit to a depth of 1.2mbgl prior to drilling.

5.3. Rationale and Summary of Scope

The Ridge Ground Investigation comprised the following scope which followed the requirements in the Site Wide Infrastructure Delivery – Project Brief for Geotechnical Investigation – August 2022:

- Four cable percussive boreholes (BH01-BH04) were advanced to a target depth of 20.00mbgl. In-situ Standard Penetration Testing (SPT) was completed throughout the drilling. The primary objective was to allow logging of deep soils, *in situ* Standard Penetration/ U100 Tests, and to provide the opportunity for collecting soil samples for subsequent laboratory analysis. The locations were positioned at water course crossing locations to enable parameters to be determined for the design (by others) of piled bridge abutments, together with allowable ground bearing pressures.
- Forty-five 1.00m deep trial pits advanced with a mechanical excavator to allow the collection of soil samples for laboratory remoulded soaked CBR testing. These locations are under proposed roads and footway/ cycleways.
- Six 2.50m deep trial pits advanced with a mechanical excavator to allow the collection of soil samples for the Mineral Extraction Investigation.
- Eleven trial pits were advanced to a depth of 2.50m to allow Infiltration Testing and Groundwater Monitoring, each undertaken at a proposed SuDS feature location.
- Eleven windowless sample boreholes drilled adjacent to Infiltration testing locations to install 50mm diameter standpipes to 2.50m allowing for groundwater gauging and gas monitoring.
- Twenty-eight earthworks testing samples collected using a mechanical excavator to allow analysis against Specification for Highways Works, soil stabilisation, geotechnical, chemical, contamination and waste classification. Testing was required to allow recommendations to be given regarding suitability of materials for re-use, moisture condition values and suitable (mcv) range and to provide recommendations for contamination, remediation, waste and materials management criteria. Soil stabilisation analysis was required to provide suitability of stabilisation techniques.
- Twenty Topsoil testing samples collected using an excavator to allow recommendation to be given on the suitability of topsoil for reuse in planting design.

5.4. Soil Sampling

All intrusive locations were logged, and any visual/olfactory evidence of contamination noted in accordance with best practice. Samples were removed at varying depths for geotechnical testing. Environmental samples were handled using a fresh pair of nitrile gloves. Selected samples were placed in sealable bags, sealed glass jars or plastic tubs (dependent on the exact laboratory requirement and analysis to be undertaken) and stored in a temperature-controlled environment before transit.

5.5. Groundwater Gauging

All newly installed monitoring wells (SA01-SA11) were monitored on 03/11/22, 06/01/23 and 02/02/23 to enable assessment of groundwater levels and the presence of any visual/ olfactory evidence of contamination of groundwater. Further winter groundwater monitoring is scheduled and the results of this will be published in due course.

6. GROUND CONDITIONS ENCOUNTERED

6.1. Soil Condition

6.1.1. Surface Covering

All test locations were surfaced with grass or bare agricultural land.

6.1.2. Topsoil

Topsoil comprising dark brown slightly sandy silty clay was identified in all locations positioned. Occasional rootlets were observed. Topsoil was circa 0.30m in thickness across the majority of the site with the exception of the Cable Percussion Borehole locations where the topsoil was deeper with a thickness of circa 0.40m.

6.1.3. Bracklesham Group

Bracklesham Group was identified in all test locations below surface covering and Topsoil. The Bracklesham Group is comprised of soft to very stiff light yellow to orangish brown slightly gravelly sandy silty Clay to approximately 2.50mbgl where it becomes firm dark grey silty sandy clay.

Very stiff strata was observed in all Cable Percussive Boreholes from circa 6.50m in BH01 and BH02 and circa 4.00m in BH03 and BH04.

6.1.4. Summary

The above natural soils are considered to be consistent with the published geology and with previous investigations.

6.2. Groundwater Conditions

Groundwater was encountered within all boreholes positions. No artesian groundwater was encountered.

6.2.1. Groundwater Strikes during Drilling

A summary of groundwater strikes noted during drilling is presented in the table below.

LOCATION	INITIAL STRIKE (MBGL)	RISING TO (MBGL)
BH01	5.00	2.80
	11.00	9.20
BH02	4.80	3.80
	8.60	4.50
BH03	6.60	5.40
	13.00	12.00
BH04	13.00	5.00

Table 6.1: Groundwater Strikes

6.2.2. Groundwater Levels during Monitoring

Results of the three rounds of groundwater level monitoring conducted to date are detailed in the table below. Additional rounds of winter groundwater monitoring are still outstanding, the results of which will be issued in an addendum report.

LOCATION	DEPTH TO BASE	03/11/22 (MBGL)	06/01/23 (MBGL)	02/02/23 (MBGL)
SA01	2.58	2.58	0.62	0.18
SA02	2.63	1.56	0.28	0.11
SA03	2.53	2.13	0.02	0.46
SA04	2.42	1.74	0.05	0.51
SA05	2.37	1.07	0.02	0.16
SA06	2.54	0.57	0.01	0.48
SA07	2.49	1.03	0.11	0.09
SA08	2.51	0.62	0.02	0.42
SA09	2.49	0.49	0.07	0.19
SA10	2.33	>2.33	0.69	0.90
SA11	2.47	>2.47	0.72	1.40

Table 6.2: Groundwater Levels

6.3. Visual/ Olfactory Evidence of Contamination

6.3.1. Soils

There was no visual/ olfactory evidence of contamination noted.

6.3.2. Groundwater

There was no evidence of contamination noted during groundwater gauging.

7. ENVIRONMENTAL TESTING

7.1. Contamination Screening

A contamination screening has been carried out at specific locations as per the Project Brief. The contamination screening will provide an indication of any risks to future ground/ construction workers, and also add to the contamination dataset of previously completed works.

A full Conceptual Site Model and Risk Assessment should be completed when access to the entire site is possible and when previously identified potential contamination source areas can be investigated.

7.1.1. Soil Assessment Methodology

Specific soil sample locations and depth was chosen by the client to give coverage of the site.

7.1.2. Generic Assessment Criteria

Ridge has undertaken a screen of the soil laboratory results using generic assessment criteria. Generic assessment criteria (GAC) are conservative contaminant concentration values used for comparison purposes to assess the risk associated with contaminant concentrations found on site and are derived using non-site-specific information.

In order to assess the soil analyses results with regard to potential human health risks, Ridge has adopted published guidance criteria widely referred to by professionals within the industry, which include the following:

- Suitable 4 Use Levels (S4ULs) Generic Assessment Criteria (GAC) developed by the Chartered Institute of Environmental Health (CIEH) in partnership with Land Quality Management Ltd. (LQM); and,
- Category 4 Screening Levels (C4SL) for lead, produced by CL:AIRE (2014); and

Based on the proposed future use of the site, comparisons have been made against the '**residential with homegrown produce**' land use setting based on the proposed site use.

Results were compared to the conservative 1.0% soil organic matter value unless otherwise stated.

With regard to human health, the CLEA model states that, 'the contamination is assumed to be at or within 1.00m of the surface' (CLR10 pg10). It is considered that at depths greater than 1m, the probability of human exposure via the direct contact pathways are significantly reduced, leaving inhalation of volatile compounds as the dominant pathway with regard to human health risks. Typically, volatile compounds only significantly affect the indoor inhalation pathway. Therefore, for the purposes of statistical analysis, data from the top 1.00m to 1.50m is used for assessment of risks to human health via direct contact pathways in accordance with the CLEA model, dependent on proposed future site levels.

7.1.3. Soil Assessment

7.1.3.1. General

Fourteen soil samples collected during the Ridge site investigation from shallow natural soils at various depths and locations were submitted to a UKAS accredited laboratory for analysis for a suite of asbestos, heavy metals, PAHs, TPH CWG, BTEX and MTBE. These samples were also submitted for WAC testing to allow assessment on the waste classification of the soil.

Laboratory analysis certificates are included as Appendix 6.

The range of potentially hazardous contaminants present on the site can be wide and varied and the suite has been chosen to reflect commonly found contaminants and others indicated by review of the previous report to have a chance of being present.

7.1.3.2. Organic Matter

Organic matter ranged from <0.10 – 3.20% within the top 0.90m.

7.1.3.3. Asbestos

Fourteen samples were tested for asbestos. None of the samples returned a positive identification of asbestos.

7.1.3.4. Heavy Metals

A summary of results is presented in the table below.

Determinand	Residential – with homegrown produce		
	Max. Conc. (mg/kg)	GAC (mg/kg)	Exceedances of Screening Values
Arsenic	11	32	None
Cadmium	<0.2	10	None
Chromium	20	910	None
Chromium VI	<0.2	6	None
Copper	14	2400	None
Lead	34	200	None
Mercury	<1	40	None
Nickel	11	130	None
Selenium	<3	250	None
Zinc	46	3700	None
Total Phenols	<2	280	None

Table 7.2: Heavy Metal Results

All the results were below the GAC, with many below the laboratory limit of detection (LOD). All results for cadmium, chromium VI, mercury, selenium and total phenols were below the LOD.

7.1.3.5. Polycyclic Aromatic Hydrocarbons (PAHs)

A summary of results is presented in the table below.

Determinand	Residential – with homegrown produce		
	Max. Conc. (mg/kg)	GAC (mg/kg)	Exceedances of Screening Value
Naphthalene	<0.1	2.3	None
Acenaphthylene	<0.1	170	None
Acenaphthene	<0.1	210	None
Fluorene	<0.1	170	None
Phenanthrene	<0.1	95	None
Anthracene	<0.1	2400	None
Fluoranthene	<0.1	280	None
Pyrene	<0.1	620	None
Benzo(a)anthracene	<0.1	7.2	None
Chrysene	<0.1	15	None
Benzo(b)fluoranthene	<0.1	2.6	None
Benzo(k)fluoranthene	<0.1	77	None
Benzo(a)pyrene	<0.1	2.2	None
Indeno(1,2,3-cd)pyrene	<0.1	27	None
Dibenz(a,h)anthracene	<0.1	0.24	None
Benzo(ghi)perylene	<0.1	320	None

Table 7.3: PAH Results

There were no exceedances of the GAC. All of the samples returned results for all determinands below LOD.

7.1.3.6. Total Petroleum Hydrocarbons (TPH)

A summary of results is presented in the table below.

Determinand	Residential – with homegrown produce		
	Max. Conc. (mg/kg)	GAC (mg/kg)	Exceedances of Screening Value
Ali >C5-C6	<0.01	42	None
Ali >C6-C8	<0.05	100	None
Ali >C8-C10	<2.00	27	None
Ali >C10-C12	<2.00	130	None
Ali >C12-C16	<3.00	1100	None
Ali >C16-C21	<3.00	1100	None
Ali >C21-C34	<10.00	1100	None
Aro >C5-C7	<0.01	70	None
Aro >C7-C8	<0.05	130	None
Aro >C8-C10	7	34	None
Aro >C10-C12	<2.00	74	None
Aro >C12-C16	<2.00	140	None
Aro >C16-C21	<3.00	260	None
Aro >C21-C35	<10.00	1100	None

Table 7.4 TPH Results

There were no exceedances of the GAC, and all determinands from all samples returned results below LOD.

7.1.3.7. BTEX and MTBE

A summary of results is presented in the table below.

Determinand	Residential – with homegrown produce		
	Max. Conc. (mg/kg)	GAC (mg/kg)	Exceedances of Screening Value
Benzene	<0.002	0.087	None
Toluene	<0.005	130	None
Ethylbenzene	<0.002	47	None
Xylenes	<0.002	56	None
MTBE	<0.005	73	None

Table 7.5: BTEX/ MTBE Results

There were no exceedances of GAC and furthermore all results were below LOD.

7.1.3.8. Discussion of Results

All laboratory testing returned results compliant with the adopted GAC with no exceedances recorded. There is not considered to be a significant contaminant risk in tested areas.

Further testing will be required when full access to the site specifically within Chalcroft Farm can be obtained.

7.2. Topsoil Testing (BS3882)

Twenty samples were submitted for Topsoil testing to determine future use of the soil. The results are summarised in the table below.

Sample ID	Compliance with Range			
	Multipurpose	Acidic	Low Fertility	Calcareous
SA01-0.1m	N	N	Y	N
SA10-0.1m	N	N	Y	N
TP24-0.1m	N	N	N	N
TP31-0.1m	N	N	N	N
TP40-0.1m	N	N	N	N
SA09-0.15m	N	N	N	N
SA02-0.2m	N	N	Y	N
SA03-0.2m	N	N	Y	N
SA04-0.2m	N	N	N	N
SA05-0.2m	N	N	N	N
SA06-0.2m	N	N	N	N
SA08-0.2m	N	N	N	N
SA11-0.2m	N	N	N	N
TP13-0.2m	N	N	Y	N
TP20-0.2m	N	N	N	N
TP26-0.2m	N	N	Y	N
TP44-0.2m	N	N	Y	N
TP33-0.3m	N	N	N	N
TP42-0.3m	N	N	N	N
TP03-0.5m	N	N	N	N

Table 7.1: Topsoil testing (BS3882) Results

All samples were not compliant with the criteria for Multipurpose (topsoil that can be used in various conditions), Acidic (topsoil with low pH) and Calcareous (chalky topsoil comprised of large amounts of calcium carbonate) use. For most samples that were non-compliant for Multipurpose use they failed on above tolerance Total Nitrogen percentage in conjunction with elevated Phosphorus, Potassium or Magnesium.

With the exception of SA01-0.1m, SA10-0.1m, SA02-0.2m, SA03-0.2m, TP13-0.2m, TP26-0.2m and TP44-0.2m all samples were not suitable for Low Fertility (topsoil with lower nutrient concentrations) soil use.

Laboratory analysis certificates are included as Appendix 6.

7.3. Waste Material

Analysis of shallow soils that may require future off-site disposal has been made to provide an indication of disposal classification.

Materials are considered to be waste as defined by the Waste Framework Directive (Directive 2008/98/EC on waste) if they are discarded, intended to be discarded or required to be discarded, by the holder. Once discarded, they remain a waste until fully recovered. If materials are stockpiled with no pre-defined destination and use, they are classified as waste. In accordance with waste hierarchy approach, materials should be considered for reuse as a preferred option over disposal.

7.3.1. Identification of Hazardous Properties

Results from all fourteen soil samples that underwent the full contamination suite were input into a Soils Characterisation Assessment Tool (HazWasteOnline) to identify whether soils on site had hazardous properties.

No samples returned hazardous properties.

7.3.2. Waste Acceptance Criteria

The second part of the assessment process is a review of Waste Acceptance Classification (WAC) testing, which was carried out on fourteen samples ranging from 0.10mbgl to 0.90mbgl

All samples were found to be suitable for disposal at inert landfill except for one sample (SA06-0.20m) which returned a result of non-hazardous.

The Waste Classification report is included as Appendix 7.

7.3.3. Summary

No samples returned hazardous properties. All samples except for one (SA06-0.20m) were found to be suitable for inert landfill. The one sample returned a result of non-hazardous

8. GEOTECHNICAL TESTING AND ASSESSMENT

8.1. Introduction

This geotechnical assessment and the subsequent geotechnical parameters will use the findings of the investigation and the results of the in-situ and laboratory geotechnical testing carried out in the boreholes, and on representative samples of the materials encountered across the site.

This section discusses the key geotechnical characteristics of each encountered stratum as determined from field observations, in-situ and laboratory geotechnical testing.

The stratigraphy revealed during the ground investigation comprised Topsoil over Bracklesham Group. Topsoil is between 0.10m and 0.48m (average: 0.34m). Bracklesham Group was confirmed to depths of 20.00mbgl in borehole positions.

Please refer to Section 6 for further discussion on each stratum.

8.2. In – Situ Testing

8.2.1. Soil Infiltration Testing

Infiltration testing was conducted in SA01 – SA11 in accordance with BRE 365. The tests comprised excavation of the trial pits to a maximum depth of 2.5mbgl, the squaring of the pit sides and the subsequent rapid filling with potable water. The fall in water level was monitored over a nominal period. The soil infiltration rate is calculated by the rate of outflow from 75% to 25% effective fill depth.

All positions failed to reach 25% with the maximum test period of 74 hours for SA02 which only achieved 89% head drop. The average test period was 27 hours. In cases where time was limited, or the security of the pit was in question tests were limited to 6 hours where the data was seen to follow the same profile as previous tests. This means that it was not possible to calculate an infiltration rate for the soakaways.

Extrapolation of some of the tests gives a permeability rating of Poor to Practically Impervious.

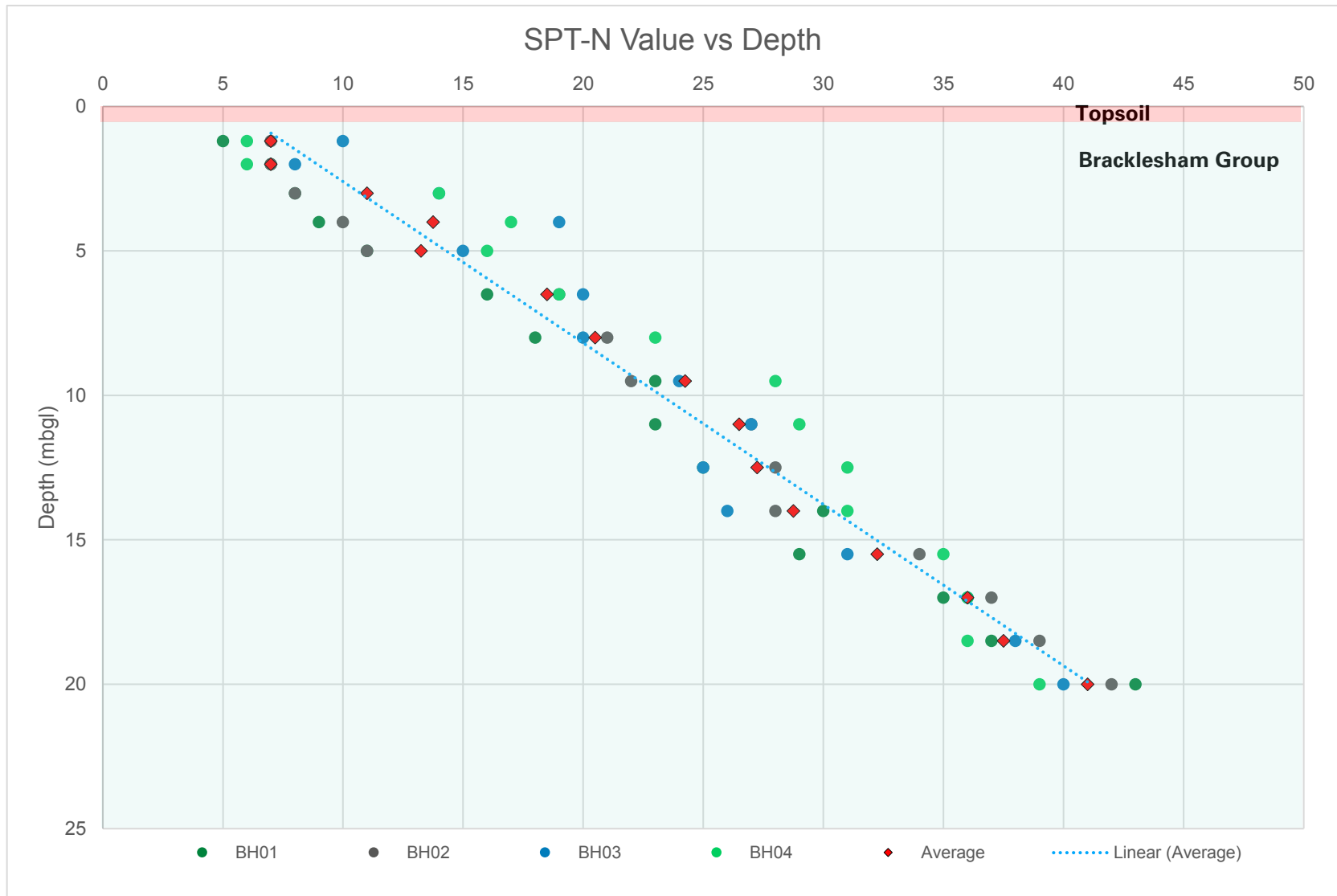
8.2.2. Standard Penetration Testing (SPT)

SPTs were completed throughout the drilling of all Cable Percussion Boreholes generally at 1.00m centres moving to 1.50m centre after reaching 5.00m depth. SPT is an *in-situ* dynamic penetration test designed to provide information on the geotechnical engineering properties of soil. The test is completed using a 63.5kg drop hammer weight, over a 750mm drop, measuring the blow counts for six, 75mm increments. The first two values are recorded as seating blows, with the remaining four values, added together to provide an 'N-value'. The graph below shows the SPT 'N' value with depth observed from testing within windowless sampler boreholes.

Due to the Topsoil being shallow no SPT 'N' value could be obtained for it.

All boreholes show a linear trend of the strata becoming stiffer with depth. Starting with a SPT 'N' value of 5-10 at 1.00m rising to 39-43 at 20.00m.

Engineering logs showing the full test results are included in Appendix 4.



Graph 8.1: Standard Penetration Testing Results

8.3. Laboratory Testing

Details of the specific procedure used in each case are shown below in Table 8.1 and the geotechnical test certificates are presented in Appendix 6.

TEST	STANDARD (BS1377:1990) UNLESS OTHERWISE INDICATED	SCHEDULED
Moisture Content	Part 2: 3.2	52
Atterberg Limit Test	Part 2: 4.h3 & 5.3	52
pH Value of soil	pH and water-soluble sulphate	24
BRE Suite	pH, water and acid soluble sulphate and total sulphur	28
PSD Wet Sieve Method	Part 2: 9.2	34
Soaked Lab CBR (4 day soaked)	Part 4: 7	45
CBR (remoulded)	Part 4: 7	13
CBR (remoulded) 5% lime stabilisation	Part 4: 7	8
Dry Density/ MC Relationship	Part 4: 3.5	13
Dry Density/ MC Relationship 5% lime stabilisation	Part 4: 3.5	8
Moisture Conditions Value/MC Relationship	Part 4: 5.5	14

Table 8.1: Summary of Geotechnical Testing

8.3.1. Moisture Content & Atterberg tests

Fifty-two samples underwent Moisture Content & Atterberg limits testing to determine the consistency limits. The results are shown in the table below.

SAMPLE ID	STRATA	MOISTURE CONT. W (%)	LIQUID LIMIT WL (%)	PLASTIC LIMIT WP (%)	425µM SIEVE (PASSING %)	PLASTICITY INDEX IP (%)	MODIFIED PLASTICITY INDEX (%)	CASAGRANDE CLASSIFICATION	VOLUME CHANGE POTENTIAL
SA01-0.1m	Gravelly Sandy Silt/Clay	17	33	15	64	18	11.52	CL Low Plasticity	Low
SA02-0.3m	Gravelly Sandy Silt/Clay	15	33	17	71	16	11.36	CL Low Plasticity	Low
SA03-0.4m	Gravelly Sandy Silt/Clay	21	41	19	83	22	18.26	CI Intermediate Plasticity	Low
SA04-0.4m	Sandy Silt/Clay	14	27	16	88	11	9.68	CL Low Plasticity	Low
SA05-0.5m	Sandy Silt/Clay	30	46	24	99	22	21.78	CI Intermediate Plasticity	Medium
SA06-0.5m	Gravelly Sandy Silty/Clay	22	45	20	97	25	24.25	CI Intermediate Plasticity	Medium
SA07-0.5m	Gravelly Sandy Silty/Clay	15	34	13	80	21	16.8	CL Low Plasticity	Low
SA08-0.5m	Gravelly Sandy Silt/Clay	26	49	23	81	26	21.06	CI Intermediate Plasticity	Medium
SA09-0.5m	Gravelly Sandy Silty/Clay	20	40	18	86	22	18.92	CI Intermediate Plasticity	Low
SA10-0.5m	Gravelly Sandy Silt/Clay	23	48	21	97	27	26.19	CI Intermediate Plasticity	Medium
SA11-0.5m	Gravelly Sandy Silt/Clay	22	50	16	82	34	27.88	CI/H Inter/High Plasticity	Medium
TP03-0.5m	Silty Clay	31	53	28	100	25	25	CH High Plasticity	Medium
TP09-0.5m	Silty Clay	24	40	13	100	27	27	CI Intermediate Plasticity	Medium
TP13-0.6m	Gravelly Sandy Silt/Clay	22	39	19	92	20	18.4	CI Intermediate Plasticity	Low
TP17-0.6m	Gravelly Sandy Silt/Clay	14	31	15	95	16	15.2	CL Low Plasticity	Low
TP20-0.6m	Gravelly Silty/Clayey	15	34	13	94	21	19.74	CL Low Plasticity	Low

SAMPLE ID	STRATA	MOISTURE CONT. W (%)	LIQUID LIMIT WL (%)	PLASTIC LIMIT WP (%)	425µM SIEVE (PASSING %)	PLASTICITY INDEX IP (%)	MODIFIED PLASTICITY INDEX (%)	CASAGRANDE CLASSIFICATION	VOLUME CHANGE POTENTIAL
TP24-0.7m	Gravelly Sandy Silty Clay	23	53	21	96	33	31.68	CH High Plasticity	Medium
TP26-0.7m	Gravelly Sandy Silt/Clay	23	40	19	92	21	19.32	CI Intermediate Plasticity	Low
TP31-0.8m	Sandy Silt/Clay	11	24	13	99	11	10.89	CL Low Plasticity	Low
TP32-0.8m	Gravelly Sandy Silt/Clay	15	32	12	90	20	18	CL Low Plasticity	Low
TP33-1m	Gravelly Sandy Silt/Clay	29	53	21	95	32	30.4	CH High Plasticity	Medium
TP34-1m	Sandy Silt/Clay	21	41	19	99	22	21.78	CI Intermediate Plasticity	Medium
TP39-1.2m	Sandy Silt/Clay	30	52	25	97	27	26.19	CH High Plasticity	Medium
TP40-1.2m	Gravelly Sandy Silt/Clay	19	34	17	97	17	16.49	CL Low Plasticity	Low
TP41-1.2m	Silty Clay	37	58	30	100	28	28	CH High Plasticity	Medium
TP43-1.2m	Silty Clay	16	37	18	100	19	19	CI Intermediate Plasticity	Low
TP44-1.3m	Gravelly Sandy Silt/Clay	26	52	24	96	28	26.88	CH High Plasticity	Medium
TP45-1.5m	Gravelly Sandy Silt/Clay	28	49	26	94	23	21.62	CI Intermediate Plasticity	Medium
BH01-1.5m	Gravelly Sandy Silt/Clay	26	52	23	91	29	26.39	CH High Plasticity	Medium
BH01-1.5m	Sandy Silt/Clay	29	58	26	98	32	31.36	CH High Plasticity	Medium
BH01-1.7m	Sandy Silt/Clay	25	52	23	96	29	27.84	CH High Plasticity	Medium
BH01-2.0m	Sandy Silt/Clay	25	52	23	99	29	28.71	CH High Plasticity	Medium
BH01-2m	Silty Clay	41	54	25	100	29	29	CH High Plasticity	Medium
BH01-3m	Silty Clay	40	57	26	100	31	31	CH High Plasticity	Medium

SAMPLE ID	STRATA	MOISTURE CONT. W (%)	LIQUID LIMIT WL (%)	PLASTIC LIMIT WP (%)	425µM SIEVE (PASSING %)	PLASTICITY INDEX IP (%)	MODIFIED PLASTICITY INDEX (%)	CASAGRANDE CLASSIFICATION	VOLUME CHANGE POTENTIAL
BH02-3m	Silty Clay	27	54	23	100	31	31	CH High Plasticity	Medium
BH02-4m	Clayey Sand	16	-	NP	100	-	-	-	-
BH02-5m	Silty Clay	24	43	21	100	22	22	CI Intermediate Plasticity	Medium
BH02-6m	Silty Clay	31	55	24	100	31	31	CH High Plasticity	Medium
BH02-6.5m	Silty Clay	32	58	26	100	32	32	CH High Plasticity	Medium
BH02-8m	Silty Clay	37	51	27	100	24	24	CH High Plasticity	Medium
BH03-8m	Silty Clay	30	50	23	100	27	27	CI/H Inter/High Plasticity	Medium
BH03-8m	Silty Clay	34	67	16	100	51	51	CH High Plasticity	High
BH03-9m	Silty Clay	30	60	23	100	37	37	CH High Plasticity	Medium
BH03-9.5m	Silty Clay	34	54	26	100	28	28	CH High Plasticity	Medium
BH03-11m	Silty Clay	32	53	24	100	29	29	CH High Plasticity	Medium
BH03-11m	Silty Clay	25	45	20	100	25	25	CI Intermediate Plasticity	Medium
BH04-12m	Silty Clay	28	53	22	100	31	31	CH High Plasticity	Medium
BH04-12.5m	Silty Clay	22	34	17	100	17	17	CL Low Plasticity	Low
BH04-14m	Silty Clay	33	54	28	100	26	26	CH High Plasticity	Medium
BH04-15.5m	Clayey Silty	46	56	32	100	24	24	MH High Plasticity	Medium
BH04-15.5m	Silty Clay	36	61	27	100	34	34	CH High Plasticity	Medium
BH04-17m	Silty Clay	30	51	23	100	28	28	CH High Plasticity	Medium

Table 8.2: Consistency Limits

The Atterberg limits testing returned the following results:

Low Plasticity - ten samples

Intermediate Plasticity - thirteen samples

High Plasticity – twenty-eight samples

In accordance with NHBC Guidance the Modified Plasticity Index translates to fifteen samples with Low volume change potential, thirty-five Medium change potential and one High volume change potential.

The strata shows a trend of plasticity increasing with depth with low plasticity to circa 0.40m, intermediate plasticity to circa 1.00m and high plasticity below 1.00m. There are localised pockets of low plasticity at 0.60m and 0.80m. Volume change potential increases from low to medium with depth with one sample returning a result of high change potential (BH03-8.00m).

8.3.2. pH/ Water Soluble Sulphate 2:1 extract

52no. representative samples of the exploratory holes underwent pH/ Water Soluble Sulphate 2:1 extract testing to determine the pH level and sulphate content of the material. The results are shown in the table below.

LOCATION	-DEPTH (MBGL)	PH VALUE	2:1 SULPHATE EXTRACT (MG/L)	CONCRETE CLASSIFICATION DESIGN CLASS	AGGRESSIVE CHEMICAL ENVIRONMENT FOR CONCRETE CLASS
TP09	0.1	6.8	<20	DS-1	AC-1
SA04	0.3	5.6	<20	DS-1	AC-1
TP32	0.4	6.4	<20	DS-1	AC-1
TP41	0.4	7.4	<20	DS-1	AC-1
TP03	0.5	6.9	<20	DS-1	AC-1
TP17	0.5	7.4	<20	DS-1	AC-1
TP20	0.5	7.1	26	DS-1	AC-1
TP24	0.5	5.5	<20	DS-1	AC-1
TP26	0.5	7.3	<20	DS-1	AC-1
TP31	0.5	6.6	<20	DS-1	AC-1
TP45	0.5	6.7	<20	DS-1	AC-1
TP13	0.6	6.7	<20	DS-1	AC-1
TP40	0.6	7.5	34	DS-1	AC-1
TP43	0.6	7.1	<20	DS-1	AC-1
TP33	0.7	6.9	<20	DS-1	AC-1
TP39	0.7	7.1	23	DS-1	AC-1

LOCATION	-DEPTH (MBGL)	PH VALUE	2:1 SULPHATE EXTRACT (MG/L)	CONCRETE CLASSIFICATION DESIGN CLASS	AGGRESSIVE CHEMICAL ENVIRONMENT FOR CONCRETE CLASS
TP34	0.8	6.8	<20	DS-1	AC-1
TP44	0.8	6.5	<20	DS-1	AC-1
SA02	1.0	6.2	24	DS-1	AC-1
SA11	1.0	6.9	<20	DS-1	AC-1
SA08	1.2	6.9	23	DS-1	AC-1
SA10	1.2	7	<20	DS-1	AC-1
BH02	1.2	6.5	60	DS-1	AC-1
SA09	1.3	6.5	30	DS-1	AC-1
SA03	1.5	4.9	<20	DS-1	AC-1
SA05	1.5	6.7	100	DS-1	AC-1
SA06	1.5	6.9	21	DS-1	AC-1
SA07	1.7	7	<20	DS-1	AC-1
SA01	2.0	4.1	32	DS-1	AC-1
BH01	2.0	7.7	269	DS-1	AC-1
BH03	2.0	7	19	DS-1	AC-1
BH04	2.0	7.4	23	DS-1	AC-1
BH02	3.0	6.8	98	DS-1	AC-1
BH01	4.0	6.8	117	DS-1	AC-1
BH03	4.0	7	20	DS-1	AC-1
BH04	6.0	6.1	82	DS-1	AC-1
BH02	6.5	6.5	108	DS-1	AC-1
BH03	6.5	6.2	40	DS-1	AC-1
BH01	7.5	6.8	100	DS-1	AC-1
BH01	9.0	6.7	107	DS-1	AC-1
BH03	9.5	5.8	124	DS-1	AC-1
BH04	9.5	6.2	25	DS-1	AC-1
BH01	10.5	7.4	839	DS-2	AC-1
BH02	11	6.4	81	DS-1	AC-1

LOCATION	-DEPTH (MBGL)	PH VALUE	2:1 SULPHATE EXTRACT (MG/L)	CONCRETE CLASSIFICATION DESIGN CLASS	AGGRESSIVE CHEMICAL ENVIRONMENT FOR CONCRETE CLASS
BH04	12.5	6.1	70	DS-1	AC-1
BH01	13.5	7.2	63	DS-1	AC-1
BH03	13.5	6.1	96	DS-1	AC-1
BH02	14.0	6.3	169	DS-1	AC-1
BH04	15.0	6.2	46	DS-1	AC-1
BH02	16.5	6.3	122	DS-1	AC-1
BH03	17.0	6.2	41	DS-1	AC-1
BH04	18.0	6.3	80	DS-1	AC-1

Table 8.3: pH/Sulphate Results

All samples had a Concrete Classification of DS-1 and Aggressive Chemical Environment for Concrete Classification of AC-1 with the exception of BH01-10.5 that was DS-2, AC-1. This result was due to Sulphate Extract of 839 mg/l when the average over the site is 71 mg/l making this an outlier that will be excluded from the data set. The average pH across all samples was 6.6 with high variation within the top 2.0m. The samples also show a general trend of Sulphate levels increasing with depth.

8.3.3. BRE Suite

28 no. representative samples of the exploratory holes underwent pH, water and acid soluble sulphate and total sulphur testing. The results are shown in the table below.

LOCATION	DEPTH (MBGL)	PH VALUE	2:1 SULPHATE EXTRACT (MG/L)	SULPHUR, TOTAL	SULPHATE AS SO ₄ , TOTAL
TP09	0.1	6.8	<20	0.01	0.03
SA04	0.3	5.6	<20	0.02	0.02
TP32	0.4	6.4	<20	0.02	<0.02
TP41	0.4	7.4	<20	<0.01	<0.02
TP03	0.5	6.9	<20	0.01	0.03
TP17	0.5	7.4	<20	0.02	0.02
TP20	0.5	7.1	26	0.02	0.03
TP24	0.5	5.5	<20	0.01	0.02
TP26	0.5	7.3	<20	0.02	0.02
TP31	0.5	6.6	<20	0.02	0.02
TP45	0.5	6.7	<20	0.08	0.02

LOCATION	DEPTH (MBGL)	PH VALUE	2:1 SULPHATE EXTRACT (MG/L)	SULPHUR, TOTAL	SULPHATE AS SO ₄ , TOTAL
TP13	0.6	6.7	<20	0.01	0.03
TP40	0.6	7.5	34	<0.01	0.03
TP43	0.6	7.1	<20	0.01	0.02
TP33	0.7	6.9	<20	0.02	0.02
TP39	0.7	7.1	23	<0.01	0.02
TP34	0.8	6.8	<20	<0.01	0.02
TP44	0.8	6.5	<20	0.01	<0.02
SA02	1	6.2	24	<0.01	0.02
SA11	1	6.9	<20	0.01	0.03
SA08	1.2	6.9	23	0.02	0.02
SA10	1.2	7	<20	0.01	0.03
SA09	1.3	6.5	30	0.03	0.07
SA03	1.5	4.9	<20	0.1	0.02
SA05	1.5	6.7	100	0.02	0.04
SA06	1.5	6.9	21	<0.01	<0.02
SA07	1.7	7	<20	<0.01	<0.02
SA01	2	4.1	32	0.02	0.06

Table 8.4: BRE Results

All samples show the same trend as the pH/Sulphate test results. Average pH is 6.6 and there is a trend of Sulphur/Sulphate increasing with depth.

8.3.4. PSD Wet Sieve/ Pipette Method

Thirty-four samples from depths of 0.10mbgl to 2.40mbgl were submitted for determination of the composition of the material. The results are presented in the table below.

SAMPLE ID	CLAY & SILT %	SAND %	GRAVEL %	COBBLES %	SUBSEQUENT CHARACTERISATION
TP09-0.10m	38	32	30	0	Gravelly Sandy Silt/Clay
SA04-0.30m	49	26	25	0	Gravelly Sandy Silt/Clay
TP32-0.40m	46	43	11	0	Gravelly Sandy Silt/Clay
TP41-0.40m	44	49	7	0	Sandy Silt/Clay
TP03-0.50m	90	10	0	0	Sandy Silt/Clay
TP17-0.50m	88	11	1	0	Gravelly Sandy Silty/Clay
TP20-0.50m	50	36	14	0	Gravelly Sandy Silty/Clay
TP24-0.50m	58	29	13	0	Gravelly Sandy Silt/Clay
TP26-0.50m	53	37	10	0	Gravelly Sandy Silty/Clay
TP31-0.50m	48	50	2	0	Gravelly Sandy Silt/Clay
TP45-0.50m	51	37	12	0	Gravelly Sandy Silt/Clay
TP13-0.60m	81	14	5	0	Gravelly Sandy Silt/Clay
TP40-0.60m	43	56	1	0	Gravelly Sandy Silt/Clay
TP43-0.60m	32	64	4	0	Gravelly Silty/Clayey Sand
TP33-0.70m	70	28	2	0	Gravelly Sandy Silty Clay
TP39-0.70m	43	54	3	0	Gravelly Sandy Silt/Clay
TP34-0.80m	47	53	0	0	Sandy Silt/Clay
TP44-0.80m	43	49	8	0	Gravelly Sandy Silt/Clay
SA02-1.00m	64	34	2	0	Gravelly Sandy Silt/Clay
SA11-1.00m	75	25	0	0	Sandy Silt/Clay
SA08-1.20m	52	48	0	0	Sandy Silt/Clay
SA10-1.20m	58	41	1	0	Gravelly Sandy Silt/Clay
SA09-1.30m	43	55	2	0	Gravelly Sandy Silt/Clay
SA03-1.50m	49	49	2	0	Gravelly Sandy Silt/Clay
SA05-1.50m	87	9	4	0	Gravelly Sandy Silt/Clay
SA06-1.50m	56	44	0	0	Sandy Silt/Clay

SAMPLE ID	CLAY & SILT %	SAND %	GRAVEL %	COBBLES %	SUBSEQUENT CHARACTERISATION
SA07-1.70m	46	54	0	0	Sandy Silt/Clay
SA01-2.00m	63	37	0	0	Sandy Silt/Clay
TP49-2.20m	88	12	0	0	Sandy Silt/Clay
TP48-2.30m	69	21	10	0	Gravelly Sandy Silt/Clay
TP50-2.30m	36	55	9	0	Gravelly Sandy Silt/Clay
TP46-2.40m	45	54	1	0	Gravelly Sandy Silt/Clay
TP47-2.40m	53	47	0	0	Sandy Silt/Clay
TP51-2.50m	28	71	1	0	Gravelly Sandy Silt/Clay

Table 8.5: PSD Analysis

The site is mainly underlain by Gravelly Sandy Silt/Clay with localised Sandy Silt/Clay which is in accordance with the engineer's logs.

8.3.1. Laboratory CBR Testing

Forty samples were submitted for Soaked Laboratory California Bearing Ratio Testing, to determine an indicative CBR value. The results are presented in the table below.

SAMPLE ID	DEPTH (MBGL)	SOAKING TIME (HOURS)	SWELLING (MM)	MOISTURE CONTENT (%)	CBR VALUE (%)
TP01	1.00	96	0.98	25	1.8
TP02	1.00	96	0.65	23	2.4
TP03	1.00	96	0.80	30	2.4
TP04	1.00	96	0.69	19	3.8
TP05	1.00	96	0.13	30	1.8
TP06	1.00	96	0.29	17	8.3
TP07	1.00	96	0.75	29	2.9
TP08	1.00	96	0.81	26	2
TP09	1.00	96	1.14	26	2.7
TP10	1.00	96	0.55	23	3.8
TP11	1.00	96	0.21	25	3.4
TP12	1.00	96	0.15	16	8

SAMPLE ID	DEPTH (MBGL)	SOAKING TIME (HOURS)	SWELLING (MM)	MOISTURE CONTENT (%)	CBR VALUE (%)
TP13	1.00	96	0.45	20	2
TP14	1.00	96	0.87	26	2.8
TP15	1.00	96	0.49	33	0.59
TP16	1.00	96	0.82	24	0.76
TP17	1.00	96	0.67	22	7.9
TP18	1.00	96	0.81	16	3.2
TP19	1.00	96	0.30	25	3.8
TP20	1.00	96	0.78	21	1.3
TP22	1.00	96	0.26	23	21
TP23	1.00	96	0.54	23	2.2
TP24	1.00	96	0.23	24	4.7
TP25	1.00	96	0.28	20	1.6
TP26	1.00	96	0.79	15	7.2
TP27	1.00	96	0.21	22	3.7
TP28	1.00	96	0.90	13	6.7
TP29	1.00	96	0.23	20	7.8
TP30	1.00	96	0.49	16	7.9
TP31	1.00	96	0.97	15	2.3
TP32	1.00	96	0.88	24	0.55
TP33	1.00	96	0.36	18	1.6
TP34	1.00	96	0.89	28	2.2
TP35	1.00	96	0.33	23	1.6
TP36	1.00	96	0.84	32	1.4
TP37	1.00	96	0.30	24	1.4
TP38	1.00	96	0.43	24	3.6

SAMPLE ID	DEPTH (MBGL)	SOAKING TIME (HOURS)	SWELLING (MM)	MOISTURE CONTENT (%)	CBR VALUE (%)
TP39	1.00	96	1.01	22	2.1
TP40	1.00	96	0.19	15	6.7
TP41	1.00	96	1.07	22	1.9
TP42	1.00	96	0.68	22	8.8
TP43	1.00	96	0.88	14	6.1
TP44	1.00	96	1.11	15	2.5
TP45	1.00	96	0.66	23	3.7

Table 8.6: Lab CBR Testing

Moisture content values were recorded to be between 13 and 30% (average: 22.11%). Subsequent remoulded CBR testing returned values ranging between 0.55 and 8.8% (average: 3.98%) for the saturated samples. Higher CBR values generally pertained to samples with a lower moisture content.

Thirteen samples were submitted for Remoulded Laboratory California Bearing Ratio Testing at natural moisture content, to determine an indicative CBR value. The results are presented in the table below.

SAMPLE ID	DEPTH (MBGL)	MOISTURE CONTENT (%)	CBR VALUE (%)
SA04	0.3	13	19
TP41	0.4	10	36
TP17	0.5	12	22
TP24	0.5	11	37
TP43	0.6	13	17
TP39	0.7	13	28
TP34	0.8	12	24
TP44	0.8	13	28
SA08	1.2	14	25
SA09	1.3	13	23
SA03	1.5	14	28
SA05	1.5	14	25

SAMPLE ID	DEPTH (MBGL)	MOISTURE CONTENT (%)	CBR VALUE (%)
SA07	1.7	13	25

Table 8.7: Lab Remoulded CBR Testing

Moisture contents ranged from 10 to 14% (average: 12.6%) with CBR values were returned between 17 and 36% (average: 25.92%).

Eight samples were submitted for Remoulded Laboratory California Bearing Ratio Testing with 5% lime stabilisation, to determine an indicative CBR value. The results are presented in the table below.

SAMPLE ID	DEPTH (MBGL)	MOISTURE CONTENT (%)	CBR VALUE (%)
TP09	0.1	12	27
TP32	0.4	21	14
TP26	0.5	13	79
TP31	0.5	9.4	85
TP45	0.5	12	75
TP40	0.6	8.4	86
SA11	1	21	26
SA01	2	18	54

Table 8.8: Lab Remoulded CBR Testing with Lime Stabilisation

CBR testing was undertaken on soils at optimum moisture content values ranging 8.4 and 21% (average: 14.35%), as determined by dry density vs optimum moisture content relationship testing. CBR values 14 to 86% (average 55.75%) for samples tested with the addition of 5% lime stabilising agent.

8.3.2. Dry Density/ Moisture Content Relationship

Twenty-one samples were submitted for Dry Density Optimum Moisture Content Relationship testing. The results are presented in the table below.

SAMPLE ID	DEPTH (MBGL)	COMPACTION POINT	MOISTURE CONT. W (%)	BULK DENSITY (MG/M ³)	DRY DENSITY (MG/M ³)	OPTIMUM MOISTURE CONTENT (%)	MAXIMUM DRY DENSITY (MG/M ³)
SA04	0.3	1	6.1	1.77	1.67	13	1.77
		2	9.2	1.89	1.73		
		3	13	2	1.77		
		4	15	1.99	1.73		
		5	18	2	1.69		
TP41	0.4	1	4.5	1.81	1.73	10	1.82
		2	7.2	1.92	1.79		
		3	10	2.01	1.82		
		4	13	2.03	1.79		
		5	17	2	1.71		
TP17	0.5	1	6.4	1.81	1.7	12	1.79
		2	9.3	1.93	1.77		
		3	12	2.01	1.79		
		4	15	2.03	1.76		
		5	22	1.93	1.58		
TP24	0.5	1	4.3	1.79	1.72	11	1.79
		2	7.3	1.89	1.77		
		3	11	1.98	1.79		
		4	13	2.02	1.78		
		5	17	1.99	1.7		
TP43	0.6	1	6	1.81	1.71	13	1.81
		2	9.4	1.94	1.77		

SAMPLE ID	DEPTH (MBGL)	COMPACTION POINT	MOISTURE CONT. W (%)	BULK DENSITY (MG/M ³)	DRY DENSITY (MG/M ³)	OPTIMUM MOISTURE CONTENT (%)	MAXIMUM DRY DENSITY (MG/M ³)
		3	13	2.04	1.81		
		4	15	2	1.74		
		5	19	1.98	1.67		
		1	7.5	1.83	1.7		
		2	10	1.94	1.76		
TP39	0.7	3	13	2.04	1.8	13	1.8
		4	17	2.04	1.75		
		5	24	1.99	1.61		
		1	6.3	1.82	1.71		
		2	9.3	1.96	1.79		
TP34	0.8	3	12	2.08	1.85	12	1.85
		4	15	2.11	1.83		
		5	24	1.97	1.58		
		1	7.1	1.8	1.68		
		2	10	1.91	1.73		
TP44	0.8	3	14	2.01	1.77	14	1.77
		4	17	2.02	1.73		
		5	19	1.98	1.66		
		1	7.4	1.88	1.75		
		2	10	1.97	1.79		
SA08	1.2	3	14	2.07	1.82	14	1.82
		4	16	2.07	1.78		
		5	30	1.9	1.46		
		1	6.2	1.84	1.73		
		2	10	1.97	1.79		
SA09	1.3	1	6.2	1.84	1.73	13	1.83

SAMPLE ID	DEPTH (MBGL)	COMPACTION POINT	MOISTURE CONT. W (%)	BULK DENSITY (MG/M ³)	DRY DENSITY (MG/M ³)	OPTIMUM MOISTURE CONTENT (%)	MAXIMUM DRY DENSITY (MG/M ³)
		2	9.4	2	1.82		
		3	13	2.06	1.83		
		4	15	2.06	1.79		
		5	26	1.92	1.52		
SA03	1.5	1	7.1	1.81	1.69	14	1.76
		2	11	1.91	1.72		
		3	14	2	1.76		
		4	16	1.98	1.7		
		5	28	1.97	1.53		
SA05	1.5	1	7.2	1.86	1.73	14	1.84
		2	10	1.98	1.8		
		3	14	2.09	1.84		
		4	16	2.08	1.79		
		5	26	1.97	1.57		
SA07	1.7	1	7.4	1.84	1.71	13	1.81
		2	10	1.98	1.79		
		3	13	2.05	1.81		
		4	16	2.06	1.77		
		5	25	1.93	1.54		
TP09	0.1	1	5.9	1.75	1.65	12	1.77
		2	8	1.84	1.7		
		3	12	1.98	1.77		
		4	14	1.92	1.69		
		5	17	1.93	1.64		

SAMPLE ID	DEPTH (MBGL)	COMPACTION POINT	MOISTURE CONT. W (%)	BULK DENSITY (MG/M ³)	DRY DENSITY (MG/M ³)	OPTIMUM MOISTURE CONTENT (%)	MAXIMUM DRY DENSITY (MG/M ³)
TP32	0.4	1	11	1.71	1.54	20	1.64
		2	13	1.79	1.58		
		3	16	1.89	1.62		
		4	21	1.98	1.64		
		5	23	1.95	1.58		
		6	26	1.9	1.51		
TP26	0.5	1	6.6	1.78	1.67	13	1.8
		2	9.4	1.87	1.71		
		3	13	2.03	1.8		
		4	15	2.05	1.78		
		5	18	2	1.69		
TP31	0.5	1	3.3	1.75	1.69	9.4	1.77
		2	6.9	1.85	1.73		
		3	9.4	1.94	1.77		
		4	12	1.96	1.74		
		5	15	1.99	1.72		
TP45	0.5	1	6.3	1.86	1.75	12	1.87
		2	9.4	1.99	1.82		
		3	12	2.1	1.87		
		4	15	2.12	1.84		
		5	18	2.06	1.74		
TP40	0.6	1	2.5	1.62	1.58	8.4	1.75
		2	5.2	1.74	1.65		
		3	8.4	1.9	1.75		

SAMPLE ID	DEPTH (MBGL)	COMPACTION POINT	MOISTURE CONT. W (%)	BULK DENSITY (MG/M ³)	DRY DENSITY (MG/M ³)	OPTIMUM MOISTURE CONTENT (%)	MAXIMUM DRY DENSITY (MG/M ³)
SA11	1	4	11	1.92	1.72	21	1.61
		5	14	1.85	1.62		
		1	15	1.79	1.56		
		2	18	1.86	1.58		
		3	21	1.95	1.61		
		4	23	1.89	1.54		
		5	26	1.84	1.46		
		1	10	1.75	1.58		
		2	13	1.85	1.63		
		3	16	1.94	1.67		
SA01	2	4	20	1.98	1.65	16	1.67
		5	26	1.9	1.52		

Table 8.9: Dry Density/ Moisture Content relationship

Optimum Moisture content ranged from 8.4 to 21% (average: 13.22%). These results were used for some of the CBR testing to find the CBR % at optimum moisture content. Maximum Dry Density results ranged from 1.61 to 1.87mg/m³ (average: 1.78mg/m³)

8.3.3. Moisture Condition Value/Moisture Content Relationship

Fourteen samples were submitted for Moisture Condition Value/Moisture Content Relationship testing. Results are presented in the table below.

SAMPLE ID	INITIAL MOISTURE CONTENT (%)	TEST NUMBER	MOISTURE CONTENT (%)	MOISTURE CONDITION VALUE
TP41-0.40m	17	1	4.5	16.1
		2	7.2	14.8
		3	10	12.2
		4	13	11.5
		5	17	10
TP45-0.50m	18	1	6.3	11.3
		2	9.4	9.8
		3	12	7.9
		4	15	6.4
		5	18	5.7
TP26-0.50m	13	1	6.5	14.1
		2	9.4	11.5
		3	13	9.1
		4	15	8.1
		5	18	6.3
TP24-0.50m	17	1	4.3	16.9
		2	7.3	15
		3	11	13
		4	13	12.1

SAMPLE ID	INITIAL MOISTURE CONTENT (%)	TEST NUMBER	MOISTURE CONTENT (%)	MOISTURE CONDITION VALUE
		5	17	12
TP20-0.50m	22	1	20	11.1
		2	22	9.4
		3	23	7.8
		4	26	5.7
		5	0	0
TP03-0.50m	31	1	14	13.2
		2	17	11
		3	19	9.3
		4	31	5.8
		5	0	0
TP40-0.60m	8.4	1	2.5	13.7
		2	5.2	12
		3	8.4	11.3
		4	11	9.6
		5	14	8.4
TP13-0.60m	23	1	23	12
		2	25	11.1
		3	28	7.4
		4	30	4.6
		5	0	0



SAMPLE ID	INITIAL MOISTURE CONTENT (%)	TEST NUMBER	MOISTURE CONTENT (%)	MOISTURE CONDITION VALUE
TP39-0.70m	24	1	7.5	14.7
		2	10	11.9
		3	13	10.2
		4	17	8.7
		5	24	6.9
TP33-0.70m	29	1	15	12.9
		2	17	10.3
		3	19	8.1
		4	29	4.4
		5	0	0
SA02-1.00m	30	1	16	12.1
		2	18	9.3
		3	20	1.8
		4	30	5
		5	0	0
SA10-1.20m	19	1	15	12.6
		2	17	9.3
		3	19	7.8
		4	22	4.9
		5	0	0
SA08-1.20m	30	1	7.4	15

SAMPLE ID	INITIAL MOISTURE CONTENT (%)	TEST NUMBER	MOISTURE CONTENT (%)	MOISTURE CONDITION VALUE
		2	10	12.5
		3	14	11.4
		4	16	9.6
		5	30	4
SA06-1.50m	29	1	15	13.2
		2	17	11.1
		3	20	9.9
		4	29	4.1
		5	0	0

Table 8.10: Moisture Condition Value/Moisture Content Relationship

9. SPECIFICATION FOR EARTHWORKS

9.1. Introduction

Part of the brief was to assess the viability of materials produced during re-grading and other earthwork activities, for its potential for re-use onsite. It is anticipated that material may be re-used in proposed fill for areas of the development that are required to be raised, in addition to beneath proposed hardstanding and road surfaces. Materials should be considered for reuse as a preferred option over disposal.

9.2. Re-use of Site-Won Material

At the time of reporting detailed cut and fill drawings have yet to be produced and or presented to Ridge, as such discussion regarding quantities or volumes of material will not form part of the assessment and subsequent specification.

Significant earthworks will be required in creation of the necessary levels for construction of the proposed mixed-use development. It is considered unlikely that areas of cut will extend to a depth greater than 2.50mbgl. Topsoil was found to an average depth of 0.36mbgl, overlying cohesive natural soils of the Bracklesham Group. Most of the cut materials will be sandy silty CLAY. Sand bands with limited thicknesses of generally <20mm were encountered at shallow depths.

In accordance with the waste hierarchy approach, reuse is a preferred option over disposal. Thus, it is expected that the encountered sandy silty CLAY be applicable for use as fill where levels need to be raised. To assess the suitability of the materials present, the results of the particle size distribution testing (Table 8.5) have been compared with Table 6/2 of the Specification for Highway Works (SHW) (Series 600) using common earthwork materials to provide an initial assessment as to the suitability for reuse. The results are tabulated below.

9.3. Classification of Site-Won Material

The tested soil samples have been compared with the acceptable limits for grading, with reference to Table 6/2 of Specification for Highway Works (Series 600). Further assessment of each material property is required to classify the soils as acceptable earthworks materials. The results from the grading comparison are presented within the table below.

SHW - COMMON EARTHWORK MATERIALS - CLASS TYPE - (I) GRADING

SAMPLE/ DEPTH (MBGL)	1A Well- Graded Granular Material	1B Uniformly Graded Granular Material	2C Stony Cohesive Material	6E & 6R Selected Granular Material	2A & 2B Wet/Dry Cohesive Material	6N & 6P Selected Well-graded Granular Material	6S Selected Well Graded Granular Material	7A Selected Cohesive Material	7D Selected Stony Cohesive Material	7E & 7I Selected Cohesive Material	7F Selected Silty Cohesive Material	6F1 Selected Granular Material (fine grading)	6F2 Selected Granular Material (coarse grading)
SA01 / 2.00	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
SA02 / 1.00	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
SA03 / 1.50	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
SA04 / 0.30	-	-	✓	-	-	-	-	✓	-	-	✓	-	-
SA05 / 1.50	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
SA06 / 1.50	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
SA07 / 1.70	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
SA08 / 1.20	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
SA09 / 1.30	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
SA10 / 1.20	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
SA11 / 1.00	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP03 / 0.50	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP09 / 0.10	-	-	✓	-	-	-	-	✓	-	-	✓	-	-
TP13 / 0.60	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-

SHW - COMMON EARTHWORK MATERIALS - CLASS TYPE - (I) GRADING

SAMPLE/ depth (mbgl)	1A Well- Graded Granular Material	1B Uniformly Graded Granular Material	2C Stony Cohesive Material	6E & 6R Selected Granular Material	2A & 2B Wet/Dry Cohesive Material	6N & 6P Selected Well-graded Granular Material	6S Selected Well Graded Granular Material	7A Selected Cohesive Material	7D Selected Stony Cohesive Material	7E & 7I Selected Cohesive Material	7F Selected Silty Cohesive Material	6F1 Selected Granular Material (fine grading)	6F2 Selected Granular Material (coarse grading)
TP17 / 0.50	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP20 / 0.50	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP24 / 0.50	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP26 / 0.50	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP31 / 0.50	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP32 / 0.40	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP33 / 0.70	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP34 / 0.80	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP39 / 0.70	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP40 / 0.60	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP41 / 0.40	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP43 / 0.60	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP44 / 0.80	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP45 / 0.50	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-

SHW - COMMON EARTHWORK MATERIALS - CLASS TYPE - (I) GRADING													
SAMPLE/ depth (mbgl)	1A Well- Graded Granular Material	1B Uniformly Graded Granular Material	2C Stony Cohesive Material	6E & 6R Selected Granular Material	2A & 2B Wet/Dry Cohesive Material	6N & 6P Selected Well-graded Granular Material	6S Selected Well Graded Granular Material	7A Selected Cohesive Material	7D Selected Stony Cohesive Material	7E & 7I Selected Cohesive Material	7F Selected Silty Cohesive Material	6F1 Selected Granular Material (fine grading)	6F2 Selected Granular Material (coarse grading)
TP46 / 2.40	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP47 / 2.40	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP48 / 2.30	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP49 / 2.20	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-
TP50 / 2.30	-	-	-	-	✓	-	-	✓	-	✓	✓	-	-

Table 9.1: SHW Class Type

The tested soil samples have been compared with the acceptable limits for grading, with reference to Table 6/2 of Specification for Highway Works (Series 600). Further assessment of each material property is required to classify the soils as acceptable earthworks materials.

Requirements for acceptability and testing of earthworks materials:

It is expected that the majority of the material excavated through both site level cut and foundation/service excavations will be cohesive with varying granular proportions, a far lesser amount of predominantly granular material is anticipated to be extracted.

Cohesive materials generated by the alteration of site levels and foundation/service trench excavation are considered suitable for the re-use in the filled areas. Any encountered granular material is considered preferential as fill. The cohesive units were predominantly characterised as SHW Class 2A & 2B (Wet/Dry Cohesive Material) with two samples returning a Class 2C (Stony Cohesive Material) classification. In accordance with guidance, both materials could be used as a general fill on site. Method compaction for various earthwork materials is given in SHW as below, which details the thickness of layers and number of passes for various types of compaction plant:

- 2C – Table 6/4 Method 2
- 2A & 2B – Table 6/4 Method 1/2

It is recommended that the cohesive and any encountered granular materials are segregated during the reduced level dig and all onsite excavations and priority given to granular soils, beneath roads or hardstanding.

The following classifications have however both identified the encountered material as acceptable for stabilisation with lime or cement for use as capping.

- 7E & 7I – For stabilisation with lime and/or cement to form capping (Class 9D/9E)
- 7F – For stabilisation with cement to form capping (Class 9B)

Lime stabilisation will be required to permit the materials use as capping layer beneath proposed hardstanding and access roads.

9.3.1. Conditioning and Laboratory Test Summary

Laboratory testing inclusive of Soaked CBR testing, remoulded CBR and dry density vs optimum moisture content relationship testing with and without the addition of a stabilising agent in addition to moisture condition value testing has been carried out to gain a further understanding of the ground conditions with respect to producing an initial specification for earthworks.

Soaked laboratory CBR testing was undertaken to present what is expected to be the minimum CBR values achieved by replicating a worst-case saturated condition for each of the tested samples. During the sample preparation period moisture content values were recorded to rise to between 13 and 30% (average: 22.11%). Subsequent remoulded CBR testing returned values ranging between 0.55 and 8.8% (average: 3.98%) for the saturated samples. Higher CBR values generally pertained to samples with a lower moisture content.

In addition to the saturated samples standard laboratory CBR testing was undertaken on soils at optimum moisture content values ranging 8.4 and 21% (average: 13.22%), as determined by dry density vs optimum moisture content relationship testing. CBR values were returned between 17 and 36% (average: 25.92%) for samples without stabilisation and 14 to 86% (average 55.75%) for samples tested with the addition of 5% lime stabilising agent.

Moisture condition value testing was completed to determine reference MCVs which can be referenced against in-situ MCV testing during the proposed earthworks. MCV testing returned values ranging 4 to 11.3 (average: 7.67) at stage one natural moisture content, with stages completed at optimum moisture content returning values ranged 7.9 to 13.2 (average: 10.73).

Conditioning of the cohesive soils will be required to enable the moisture content to be reduced to near optimum moisture content given the average value of 3.98% returned from testing under saturated conditions. In situ testing comprising nuclear density testing, sand replacement tests and plate loading tests should be carried out to ensure the materials have been adequately compacted.

9.3.2. Pavements and Roads

Soaked laboratory CBR testing returned values ranging 0.55 and 8.8% (average: 3.98%). Testing completed at optimum moisture content returned values between 8.4 and 21% (average 13.22%). Should conditioning not be completed a conservative value of 1% is considered appropriate. Conditioning to reduce the natural moisture content to near optimum will allow a value of 17% to be used for design. The CBR values should be used if the cut material is to be used for pavement and/or road design, subject to validation. Validation to check compliance with specification can include density tests, Dynamic Cone Penetrometer tests in-situ CBR etc.

9.4. Acceptability For Earthworks Materials

Acceptable limits for the site-won fills identified within Table 9.1 in addition to others appropriate to the contract. Please refer to Appendix 2 for specific detail. Testing of applicable parameters shall be in accordance with the requirements and frequency as presented within Table 6/1 (SHW Series 600), specific testing frequency is presented within the table below.

CONSTRUCTION DETAIL	MATERIAL	TEST TYPE	FREQUENCY
Pre-commencement Material Testing	All Bulk Fill	Particle size distribution (PSD) and natural moisture content	1 per 1000 m ³ .
		Proctor compaction tests using 4.5 kg rammer – optimum moisture content and maximum dry density	1 per 2000 m ³ .
		Laboratory moisture condition value (MCV)	1 per 2000 m ³ .
In-situ Validation Engineered Upfill	Engineered Granular or Cohesive	Max deformation and CBR by plate load	5 every 900 mm upfill
			1 test per 225 m ² (15 m grid)

		In-situ density	1 test per 225 m ² (15 m grid) or every second layer (450 mm) upfill.
CONSTRUCTION DETAIL	MATERIAL	TEST TYPE	FREQUENCY
In-situ Validation	Engineered	In-situ Moisture Condition Value (MCV)	1 per 2000 m ³ .
Engineered Upfill	Granular or Cohesive	In-situ density	1 test per 225 m ² (15 m grid) or every second layer (450 mm) upfill.
		In-situ Moisture Condition Value (MCV)	1 per 2000 m ³ .
	Cohesive	Undrained Shear Strength by HSV	1 test per 625 m ² .
Base of Formation	Granular	CBR by plate load	1 test per 225 m ² (15 m grid)
	Cohesive	Undrained Shear Strength by HSV	1 test per 625 m ² .

Table 9.2: Validation Testing Criteria

The above table should be read in conjunction with acceptability requirements as presented in Appendix 2. The contractor shall submit test certificates to demonstrate compliance with the testing requirements.

9.5. General Requirements

This full specification shall be read in conjunction with the must be read in conjunction with the general requirements in the 'Specification for Highway Works, Series 000 and 100' and with all other Series relevant to the specification for the particular works to be undertaken.

The structural earthworks are to be constructed in accordance with this specification and the Highways Agency publication "Manual of Contract Documents for Highway Works, Volume 1 Specification for Highway Works, Series 600: Earthworks, 1998 Edition incorporating amendments up to and including February 2016" including such relevant specifications and codes referred to therein and as modified and added to within this document.

The contractor shall employ only plant and working methods that are considered suitable to the materials handled on-site. The contractor will be responsible for maintaining the nature of the acceptable material so that when it is placed and compacted it remains acceptable in accordance with the above classifications.

Compaction should be in accordance with SHW if the tested materials are to be used as fill. In-situ testing will be necessary to confirm that compaction has been adequately carried out. Where clay is used for the filling, conditioning will be required to enable the moisture content to be reduced to near optimum moisture content. In situ testing comprising sand replacement tests and plate loading tests should be carried out to ensure the materials have been adequately compacted.

It will be necessary to remove topsoil within areas of proposed fill. If topsoil is used as fill, ongoing settlement should be expected as the organic content degrades in the lower layers. Where practical, Topsoil should be used immediately after stripping and, should this not be achievable, the material should be stored in stockpiles

of heights not exceeding 3.00m and for no longer than one year in accordance with BS 4428:1989 Code of practice for general landscape operations.

In addition to grade specific partial size requirements, the maximum particle size of any fill material shall not be greater than two-thirds of the compacted layer thickness, except where encountered cobbles with an equivalent diameter greater than 150mm are not deposited within the final surface level unless directed otherwise by the supervising engineer. Un-burnt colliery spoil, pulverised fuel ash or furnace bottom ash shall not be used as a fill material.

9.5.1. Site Specific Requirements

At the time of reporting detailed cut and fill drawings have yet to be produced and/or presented to Ridge, as such discussion regarding quantities or volumes of material do not form part of the site-specific requirements. It is anticipated that earthworks are to include cut and fill to varying extents site wide, in addition to material derived from excavations associated with foundations, service trenches and other infrastructure.

The majority of the encountered Topsoil surface covering will likely be removed across development areas of the site. Followed by earthworks required to develop a formation level for the proposed foundations. Where site level reduction works terminate within a surface covering of either Topsoil or any encountered Made Ground, the excavation should be extended to expose undisturbed natural material, this may require additional fill in order to raise site levels back to formation.

Conditioning of cohesive material at formation level is required across all areas of proposed building footprints. Lime stabilisation should be used when encountering any localised soft spots within undisturbed natural or upfilled land. The lime stabilisation should treat a minimum thickness of 300mm below the reduced site level, or below the proposed formation level within areas of cut.

Where encountered, granular material should be stockpiled separately to predominantly cohesive material anticipated. Recovered granular soils should be preferentially used when constructing the formation level in areas of fill. The raising of levels to formation should comprise compaction in accordance with Specification for Highway Works (Series 600), with knowledge of both material classification and the available compaction machinery. Conditioning and/or lime stabilisation, where required shall be undertaken in layers over the full depth of the compacted upfill. Layer thicknesses in accordance with SHW.

Compacted and stabilised upfilled and natural soils at formation level should achieve an acceptable CBR value greater or equal to 14%, a MCV within a 96% to 102% tolerance of the OMC and SRT results within 95% of maximum dry density.

Validation testing at formation level is to consist of in-situ CBR testing by way of plate load and sand replacement density testing (SRT) at a maximum frequency of 1 per 225m². Undrained shear strength validation by HSV testing should be undertaken at a frequency of 1 test per 625m². Further information regarding applicable validation testing is presented within table 9.2 of this report.

Should any soft spots be encountered during site reduction or formation earthworks, these soils should be treated by way of lime stabilisation and tested for compliance with the required spec or removed and replaced with an engineered fill.

9.5.2. Unacceptable Material

Unacceptable material which does not comply with the allowable constituents and material properties of MCHW Table 6/1 in the case of Unacceptable Material Class U1A. In addition to contaminated materials as defined in the Environmental Protection Act 1990 Part IIA, in the case of Unacceptable Material Class U1B.

The contractor is solely responsible for ensuring full and detailed analysis of all reported ground conditions and areas of risk in terms of the potential for unacceptable material to be present within the proposed earthworks. Class U1 and U2 material shall be removed from the site.

Where the excavation reveals a combination of acceptable and unacceptable materials, the contractor shall carry out the excavation in such a manner that the acceptable materials are excavated separately for use in the permanent works without contamination by the unacceptable materials. Unless otherwise described in the contract, classes of fill material required to be deposited separately shall be excavated separately without contamination by other classes of material.

9.5.3. Support of Excavations

The contractor is responsible for the design, construction, erection and subsequent removal of all temporary works, infrastructure, and the temporary stability for the duration of the works.

Prior to the commencement of the works, the contractor shall issue details of their proposal for supporting the sides of any proposed excavation which will comprise a slope steeper than 1:1.5, and/or exceeding 1.20mbgl which will be formed during ground works. The contractor shall issue information to justify the adequacy of his proposed methods.

Any excavations with proximity to existing or proposed infrastructure inclusive of foundations, roads, drainage features or services shall be advanced and supported in manner as to protect the feature whilst ensuring that the development level is not adversely affected. As before the contractor shall issue information to justify the adequacy of his proposed methods.

9.5.4. Formation Protection

All vehicular traffic inclusive of plant is not operated on the sub-formation without adequate protection measure, except for equipment that is required for the preparation of the sub-formation itself the contractor is to submit a proposal for the preparation of the sub-formation and in addition to, how they intend for it to be trafficked.

Should areas of sub-formation be damaged by factors inclusive of vehicle trafficking or adverse weather the contractor should inform the administrator and submit proposals for remedial works.

The sub-formation shall not be left exposed for more than 4 hours after being uncovered.

9.5.5. Record-Keeping and Verification

Where necessary the contractor is to comply with all requirements set out by the Local Authority regarding the notification, inspection and approval of all excavations, sub-formation and formation levels. The contractor is to keep dated records of all inspections.

The contractor shall provide the contract administrator with an agreed notice period prior to the exposure of the sub-formation level, thus allowing the administrator to inspect the sub-formation should they be inclined. This period shall be a minimum of 24 hours.

The contractor shall maintain copies of, full records of notices, inspections, and the time of formation exposure prior to covering up. This information is to be shared with the administrator at time intervals to be agreed prior to the start of the works. The contractor is to photograph sub-formations and formations and keep an onsite record.

10. GEOTECHNICAL ASSESSMENT

This section discusses the key geotechnical characteristics of each encountered stratum as determined from field observations, in-situ and laboratory geotechnical testing. The stratigraphy revealed during the ground investigation comprised Topsoil, underlain by cohesive deposits of the Bracklesham Group.

The strata shows a trend of plasticity increasing with depth with low plasticity to circa 0.40m, intermediate plasticity to circa 1.00m and high plasticity below 1.00m. There are localised pockets of low plasticity at 0.60m and 0.80m. Volume change potential increases from low to medium with depth with one sample returning a result of high change potential (BH03-8.00m).

Heave protection measures will be required for new foundations due to the volume change potential found of Medium to High found on site.

Based on SPT results an estimated safe bearing pressure for shallow foundation for a bridge approach of 75kPa for a minimum depth of 1.50mbgl is considered appropriate. This would be within material of soft to firm slightly sandy silty clay. Greater allowable pressures can be achieved by deepening foundations.

Data extracted from the drilling of deep Cable Percussive Boreholes can be used to aid pile design for the bridge abutments.

Soaked laboratory CBR testing returned values ranging 0.55 and 8.8% (average: 3.98%). Testing completed at optimum moisture content returned values between 8.4 and 21% (average 13.22%). Should conditioning not be completed a conservative value of 1% is considered appropriate. Conditioning to reduce the natural moisture content to near optimum will allow a value of 17% to be used for design. The CBR values should be used if the cut material is to be used for pavement and/or road design, subject to validation. Validation to check compliance with specification can include density tests, Dynamic Cone Penetrometer tests in-situ CBR etc.

Buried concrete should be specified to comply with the findings of the testing carried out, as summarised in Table 8.4. This was mostly DS1 AC1. One sample (BH01-10.50m) returned a result of DS-2, AC-1.

pH and sulphate testing as well as BRE suite testing showed an average pH of 6.6 and a trend of sulphur and sulphate generally increasing with depth.

None of the eleven infiltration tests conducted were able to give an infiltration rate. All tests failed to reach 25% head of water required to calculate infiltration rate.

11. CONCLUSIONS AND RECOMMENDATIONS

11.1. Contamination Screening

Contamination screening carried out was undertaken at specific locations. The contamination screening is considered to be a continuation from previous risk assessments carried out.

No sources of contamination were identified during the Ridge investigation. Laboratory testing returned no exceedances of the adopted criteria and no unacceptable risk posed to human health.

It is possible that areas yet to be investigated such as within Chalcroft Farm will contain areas of Made Ground/fill, and therefore subsequently there may be other areas with elevated contaminants. Specific area of proposed soft landscaping should be assessed at the appropriate time.

It is recommended that a pre-demolition asbestos survey is undertaken to firstly identify the presence of asbestos within the existing structures, and subsequently quantify this. This survey should be undertaken by a suitably qualified person in accordance with good practice. Following this survey, depending on the presence, type and quantity of asbestos, it may be necessary to remove this material in accordance with best practice. Recommendations should be made in the pre-demolition asbestos survey as to the requirement of these works.

Investigation into Asbestos Containing Soils (ACSs) may be required following demolition works.

Investigations into proposed landscaped areas at appropriate time, and into specific contamination sources previous identified.

Based on the finding so far there is little to no risk of contamination migration through soil, water or gas.

11.2. Waste Classification

No samples returned hazardous property. All samples except for one (SA06-0.20m) were found to be suitable for inert landfill. The one sample returned a result of non-hazardous.

11.3. Geotechnical

The stratigraphy revealed during the ground investigation comprised Topsoil, underlain by cohesive deposits of the Bracklesham Group.

The strata shows a trend of plasticity increasing with depth with low plasticity to circa 0.40m, intermediate plasticity to circa 1.00m and high plasticity below 1.00m. Volume change potential increases from low to medium with depth with one sample returning a result of high change potential (BH03-8.00m).

Heave protection measures will be required for new foundations due to the volume change potential found of Medium to High found on site.

Based on SPT results an estimated safe bearing pressure for shallow foundations for a bridge approach of 75kPa for a minimum depth of 1.50mbgl is considered appropriate. Greater allowable pressures can be achieved by deepening foundations. Data extracted from the drilling of deep Cable Percussive Boreholes can be used to aid pile design.

Soaked laboratory CBR testing returned values ranging 0.55 and 8.8% (average: 3.98%). Testing completed at optimum moisture content returned values between 8.4 and 21% (average 13.22%). Should conditioning not be completed a conservative value of 1% is considered appropriate. Conditioning to reduce the natural moisture content to near optimum will allow a value of 17% to be used for design.

Concrete classification for most of the samples was DS1 AC1 from 0.10m to 18.0m. Samples showed an average pH of 6.6 and a trend of sulphur and sulphate generally increasing with depth.

All infiltration tests failed to reach 25% head of water required to calculate infiltration rate and therefore the use of infiltration drainage for surface water disposal is not considered possible in the tested areas.

11.4. Topsoil

Of the samples submitted for Topsoil testing all samples returned results of non-compliant for Multipurpose, Acidic and Calcareous use. With the exception of SA01-0.1m, SA10-0.1m, SA02-0.2m, SA03-0.2m, TP13-0.2m, TP26-0.2m and TP44-0.2m all samples were not suitable for Low Fertility soil use. Samples that were non-compliant for Multipurpose use failed mainly on high Total Nitrogen percentage in conjunction with elevated Phosphorus, Potassium or Magnesium.

Areas investigated to date are not considered to be contaminated and no remediation is required.

11.5. Earthworks

Significant earthworks will be required in creation of the necessary levels for the construction of the proposed mixed-use development. It is considered unlikely that areas of cut will extend to a depth greater than 2.50mbgl. Topsoil was found to an average depth of 0.36mbgl, overlaying cohesive natural soils generally recorded as sandy silty CLAY. Sand bands with limited thicknesses of generally <20mm were encountered at shallow depths.

Soil samples collected during the ground investigation have been compared with the acceptable limits for grading, with reference to Table 6/2 of Specification for Highway Works (Series 600).

The cohesive units were predominately characterised as SHW Class 2A & 2B (Wet/Dry Cohesive Material) with two samples returning a Class 2C (Stony Cohesive Material) classification. In accordance with guidance, both materials can be used as a general fill on site. Method compaction for various earthwork materials is given in SHW as below, which details the thickness of layers and number of passes for various types of compaction plant:

- 2C – Table 6/4 Method 2
- 2A & 2B – Table 6/4 Method 1/2

The following classifications have however both identified the encountered material as acceptable for stabilisation with lime or cement for use as capping.

- 7E & 7I – For stabilisation with lime and/or cement to form capping (Class 9D/9E)
- 7F – For stabilisation with cement to form capping (Class 9B)

Soil stabilisation is considered viable following the above analysis soil conditioning and the addition of stabilising agents such as lime and cement are applicable. Lime stabilisation will likely be required to permit the materials use as capping layer beneath proposed hardstanding and access roads.

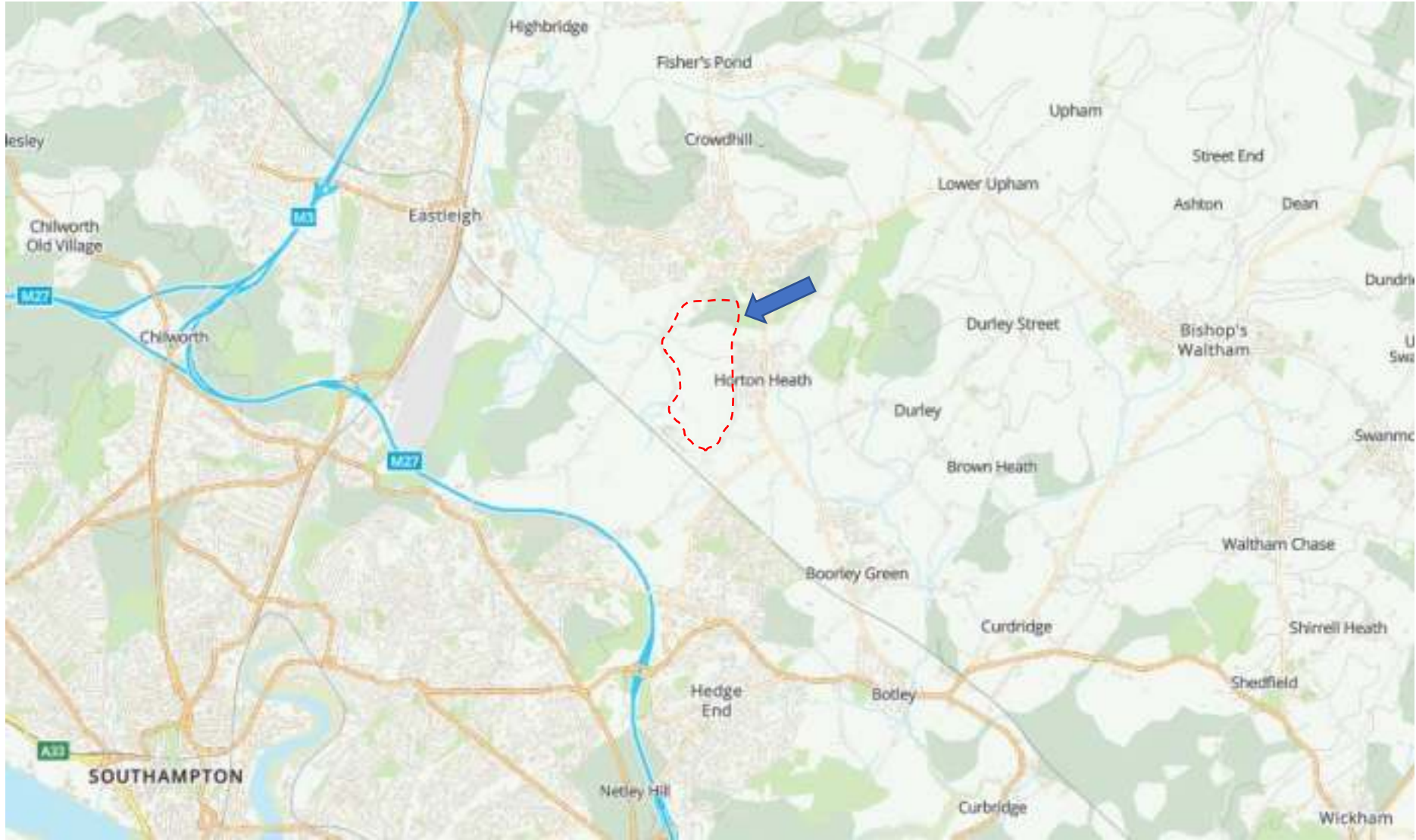
Moisture condition value testing was completed to determine reference MCVs which can be referenced against in-situ MCV testing during the proposed earthworks. MCV testing returned values ranging 4 to 11.3 (average: 7.67) at stage one natural moisture content, with stages completed at optimum moisture content returning values ranging from 7.9 to 13.2 (average: 10.73). MCV reference values should be selected based on proximity to the associated area of earthworks. Validation testing will be required to ensure that values are within the range presented within Appendix ... testing frequency should strictly be undertaken in line with that presented within Table 9.2.

11.6. Further Investigation

It is recommended that further geo-environmental investigations are undertaken at a later date when access to all parts of the site is possible specifically within Chalcroft Farm. Results from additional phases of investigation should be incorporated and used to firm up conclusions and recommendations made within this report.

Investigation with be required in areas proposed for structures.

FIGURE 1 – SITE LOCATION PLAN



Project:		One Horton Heath		Title:	Site Location Plan	
Job Number:	5019962	Client	Eastleigh Borough Council	Ridge and Partners LLP TEL: 01962 834400 www.ridge.co.uk	1 Royal Court Kings Worthy Winchester SO23 7TW	
Drawing:	5019962-Fig1	Revision	-			
Drawn:	RA	Date	January 2023			
Checked by:	RJH	Scale	NTS			

FIGURE 2 – PROPOSED DEVELOPMENT PLANS



Project		One Horton Heath		Title	Proposed Development Plans
Job Number	5019962	Client	Eastleigh Borough Council	 1 Royal Court Kings Worthy Winchester SO23 7TW Ridge and Partners LLP www.ridge.co.uk TEL: 01962 834400	
Drawing	5019962-Fig2	Revision	-		
Drawn	RA	Date	January 2023		
Checked by	RJH	Scale	NTS		

FIGURE 3 – TEST LOCATION PLAN



Project	One Horton Heath			Title	Test Location Plan	
Job Number	5019962	Client	Eastleigh Borough Council			1 Royal Court Kings Worthy Winchester SO23 7TW
Drawing	5019962-Fig3	Revision	-			
Drawn	RA	Date	January 2023			
Checked by	RJH	Scale	NTS			
					Ridge and Partners LLP www.ridge.co.uk	TEL: 01962 834400

APPENDIX 1 – REPORT CONDITIONS

This report is produced solely for the benefit of **Eastleigh Borough Council** and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report refers, within the limitations stated, to the condition of the site at the time of the inspections. No warranty is given as to the possibility of future changes in the condition of the Site.

This report is based on a visual Site inspection, study of readily accessible referenced historical records, information supplied by those parties noted in the text and preliminary discussions with local and Statutory Authorities. Some of the opinions are based on unconfirmed data and information and are presented in good faith without exhaustive clarification. Where ground contamination is suspected but no physical Site test results are available to confirm this, the report must be regarded as initial advice only, and further assessment should be undertaken prior to detailed activities related to the Site. Where test results undertaken by others have been made available these can only be regarded as a limited sample. The possibility of the presence of contaminants, not revealed by this research cannot be discounted.

Whilst confident in the findings detailed within this report because there are no exact UK definitions of these matters, being subject to risk analysis, we are unable to give categorical assurances that they will be accepted by Authorities or Funds etc. without question, as such bodies may have unpublished, often more stringent objectives. This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to Ridge and Partners LLP. In time improved practices or amended legislation may necessitate a re-assessment.

The report is necessarily limited to those aspects of land contamination specifically reported on and no liability is accepted for any other aspect especially concerning gradual or sudden pollution incidents that may occur. The opinions expressed cannot be absolute due to the limitations of time and resources within the context of the agreed brief and the possibility of unrecorded previous use and abuse of the Site and adjacent Sites. The report concentrates on the Site as defined in the report and provides an opinion on surrounding Sites. If migrating pollution or contamination (past or present) exists this can only practically be better assessed following extensive on and off Site intrusive investigations and monitoring.

APPENDIX 2 – REQUIREMENTS FOR ACCEPTABILITY AND TESTING ETC. OF EARTHWORKS MATERIALS

Class	General Material Description	Typical Use	Permitted Constituents (all Subject to Requirements of Clause 601)	Material Properties Required for Acceptability (In Addition to Requirements on Use of Fill Materials in Clause 601 and Testing in Clause 631)		
				Property (See Exceptions in Previous Column)	Acceptable limits within:	
					Lower	Upper
1A	Well-Graded Granular Material	General fill	As table 6/1 (SHW Series 600)	(iii) mc	4% below OMC	2% above OMC
				(iv) MCV	-	-
1B	Uniformly Graded Granular Material	General fill		(iii) mc	4% below OMC	2% above OMC
				(iv) MCV	-	-
2C	Stony Cohesive Material	General fill		As table 6/1	As table 6/1	As table 6/1
2A	Wet Cohesive Material	General fill	Any material, or combination of materials, other than chalk.	(iii) mc	4% below OMC	2% above OMC
				(iv) MCV	4% below MCV at OMC	2% above MCV at OMC
2B	Dry Cohesive Material	General fill		(iii) mc	4% below OMC	2% above OMC
				(iv) MCV	4% below MCV at OMC	2% above MCV at OMC
4	Various	Fill to landscaping areas	Refer to soft landscaping specifications			
5A	Topsoil	Soft Landscaping	Refer to soft landscaping specifications			
6E & 6R	Selected Granular Material	For stabilisation with cement to form capping	As table 6/1 (SHW Series 600)	(ii) mc	As table 6/1	As table 6/1
				(iii) liquid limit	-	45%
				(iv) plasticity index	-	20%
6I & 6J	Selected Well/Uniformly Graded Granular Material	Fill to reinforced soil	Well burnt colliery slag shall not be used. Chalk shall not be used. Otherwise as table 6/1	(iv) mc	4% below OMC	2% above OMC
				(v) MCV	-	-
				(vi) effective angle of friction (ϕ')	$\phi' = 35^\circ$	As table 6/1

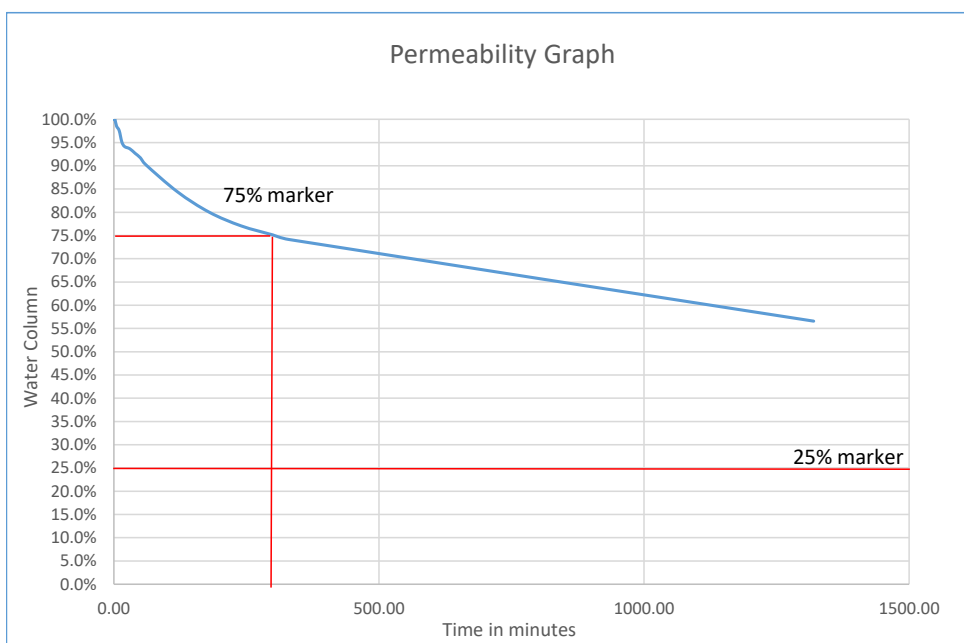
Class	General Material Description	Typical Use	Permitted Constituents (all Subject to Requirements of Clause 601)	Material Properties Required for Acceptability (In Addition to Requirements on Use of Fill Materials in Clause 601 and Testing in Clause 631)		
				Property (See Exceptions in Previous Column)	Lower	Upper
6I & 6J	Selected Well/Uniformly Graded Granular Material	Fill to reinforced soil	Well burnt colliery slag shall not be used. Chalk shall not be used. Otherwise as table 6/1	(vi) effective cohesion (c')	0	As table 6/1
				(vii) coefficient of friction	-	As table 6/1
				(vii) coefficient of adhesion	-	As table 6/1
6N & 6P	Selected Well-Graded Granular Material	Fill to structures	As table 6/1 (SHW series 600)	(v) effective angle of internal friction (ϕ') and effective cohesion (c')	$\phi' = 35^\circ$	As table 6/1
				(vi) permeability	10^{-3} m/s	-
				(vii) mc	4% below OMC	2% above OMC
				(viii) MCV	-	-
				(ix) slope stability test	Slope stability test is not required	
6S	Selected Well-Graded Granular Material	Filter layer below subbase	Crushed rock or sand conforming to BS EN 13242	(ii) plasticity index	-	Non-plastic
7A	Selected Cohesive Material	Fill to structures	As table 6/1 (SHW Series 600)	(ii) mc	As table 6/1	As table 6/1
				(iii) MCV	As table 6/1	As table 6/1
				(iv) undrained shear parameters (c and ϕ)	As table 6/1	As table 6/1
				(v) effective angle of internal friction (ϕ') and effective cohesion (c')	As table 6/1	As table 6/1

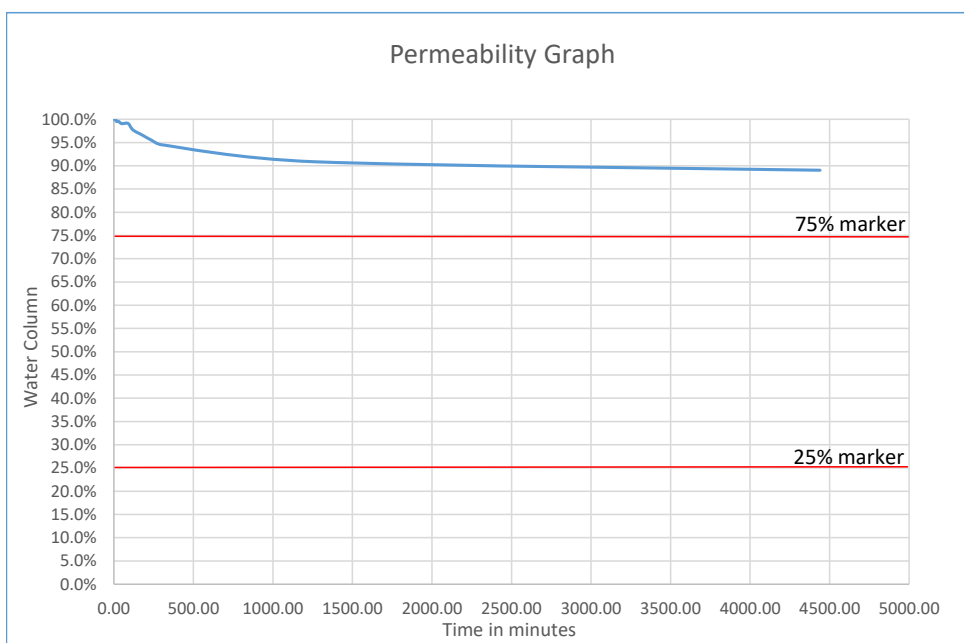
Class	General Material Description	Typical Use	Permitted Constituents (all Subject to Requirements of Clause 601)	Material Properties Required For Acceptability (In Addition To Requirements On Use Of Fill Materials In Clause 601 And Testing In Clause 631)		
				Property (See Exceptions in Previous Column)	Acceptable limits within:	
					Lower	Upper
7A	Selected Cohesive Material	Fill to structures	As table 6/1 (SHW Series 600)	(vii) liquid limit	-	45%
				(viii) plasticity index	-	25%
7D	Selected Stony Cohesive Material	Fill to reinforced soil	As table 6/1 (SHW Series 600)	(ii) mc	As table 6/1	As table 6/1
				(iii) MCV	As table 6/1	As table 6/1
				(iv) undrained shear parameters (c and ϕ)	As table 6/1	As table 6/1
				(v) effective angle of internal friction (ϕ') and effective cohesion (c')	As table 6/1	As table 6/1
				(vii) liquid limit	-	45%
				(viii) plasticity index	-	25%
7E & 7I	Selected Cohesive Material	For stabilisation with lime to form capping (Class 9D)	As table 6/1 (SHW Series 600)	(ii) mc	-	As table 6/1
				(iii) MCV	As table 6/1	-
				(iv) plasticity index	10%	-
7F	Selected Silty Cohesive Material	For stabilisation with cement to form capping (Class 9B)	Any material, or combination of materials, other than chalk, unburnt colliery spoil and argillaceous rock	(ii) uniformity coefficient	5	-
				(iii) mc	As table 6/1	As table 6/1
				(iv) MCV	As table 6/1	As table 6/1
				(v) liquid limit	-	45%
				(vi) plasticity limit	-	20%

Class	General Material Description	Typical Use	Permitted Constituents (all Subject to Requirements of Clause 601)	Material Properties Required For Acceptability (In Addition To Requirements On Use Of Fill Materials In Clause 601 And Testing In Clause 631)		
				Property (See Exceptions in Previous Column)	Acceptable limits within:	
					Lower	Upper
6F1	Selected Granular Material (fine grading)	Capping	As table 6/1 (SHW Series 600)	As table 6/1	As table 6/1	As table 6/1
6F2	Selected Granular Material (coarse grading)	Capping		As table 6/1	As table 6/1	As table 6/1
6F3	Selected Granular Material	Capping		As table 6/1	As table 6/1	As table 6/1

Note: Laboratory test certificates and site investigation plan should be referenced in reviewing this table. Values returned from laboratory testing should inform the acceptable limits in proximity to the sample location.

APPENDIX 3 – INFILTRATION TEST CERTIFICATES





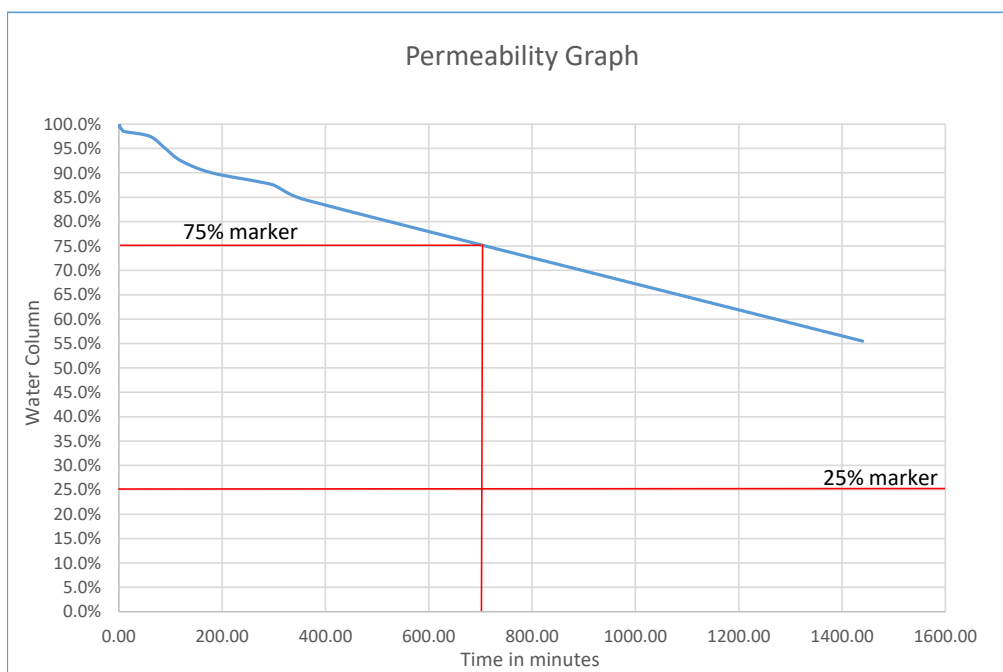


Test 1

[illegible]

Pit Size		Time in mins	
Length	1.50	n/a	700 75%
Width	0.30		25%
Depth	2.50		

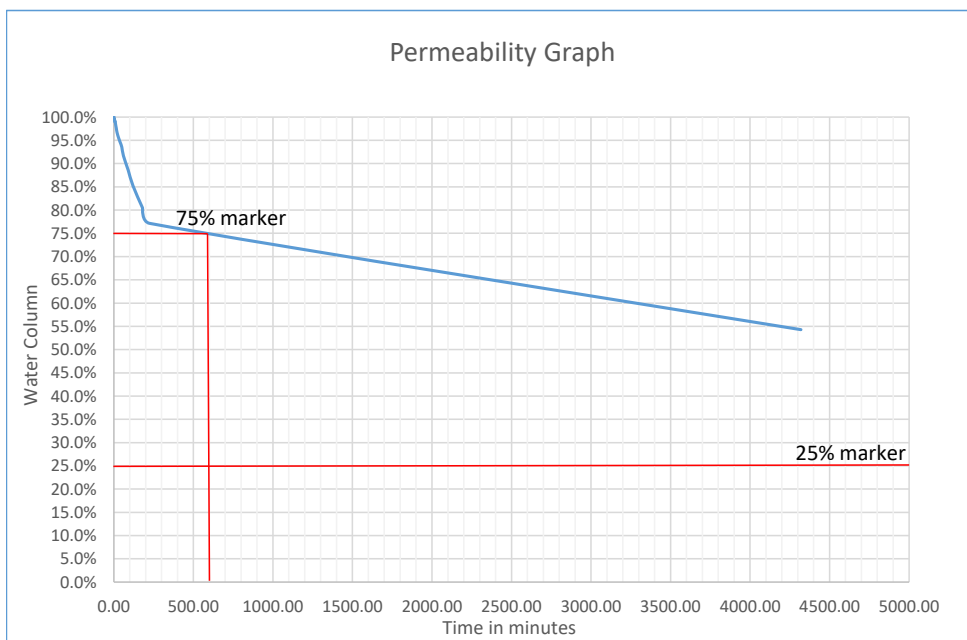
Water level did not drop to the 25% marker therefore infiltration rate cannot be calculated

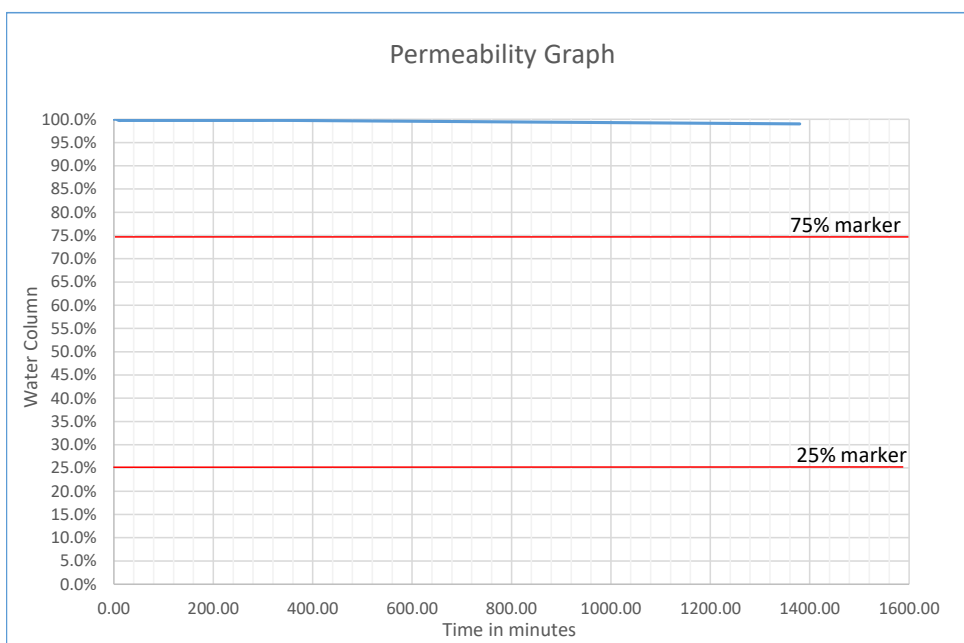


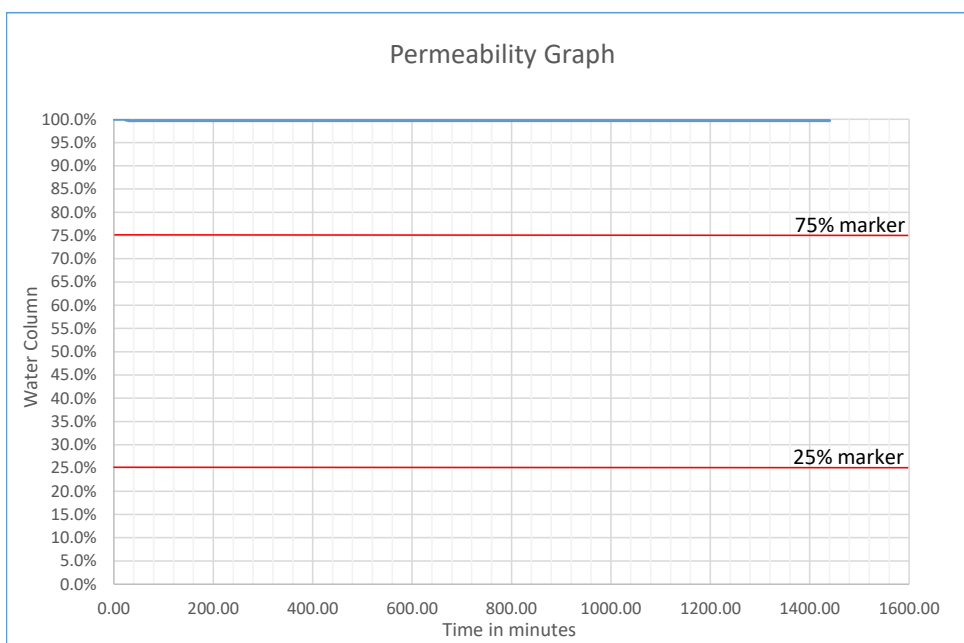
Soakaway Test Results & Soil Infiltration Rate**One Horton Heath****Project: 5019962****Hole ID: SA04****Date: 24/10/22****Test 1**

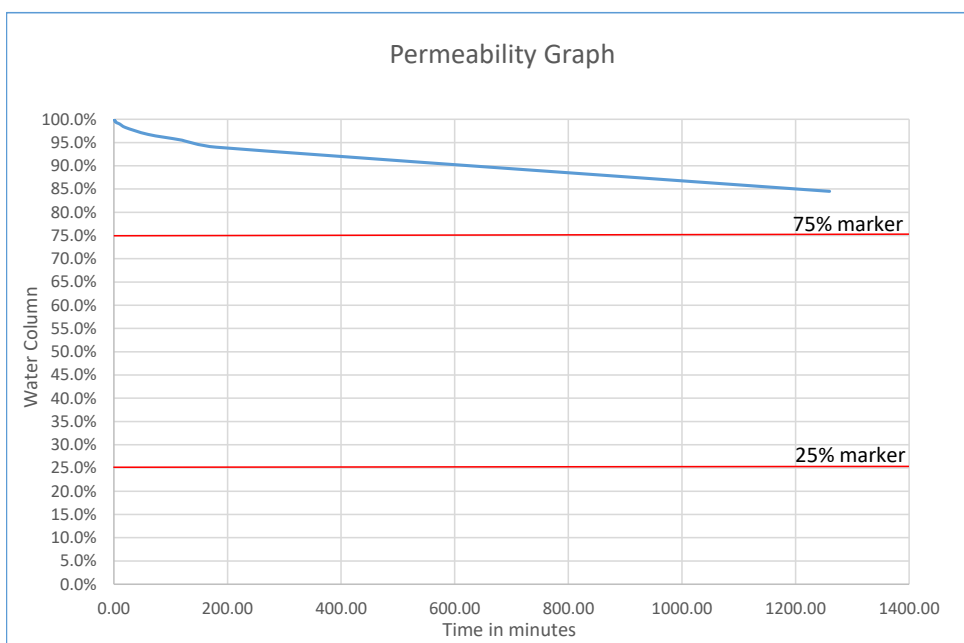
Time in minutes	Depth in metres to water surface	Depth in metres of water	Percentage of water depth at start
0.00	0.490	2.10	100.0%
0.25	0.490	2.10	100.0%
0.50	0.490	2.10	100.0%
0.75	0.490	2.10	100.0%
1.00	0.490	2.10	100.0%
1.50	0.490	2.10	100.0%
2.00	0.500	2.09	99.5%
2.50	0.500	2.09	99.5%
3.00	0.500	2.09	99.5%
3.50	0.500	2.09	99.5%
4.00	0.500	2.09	99.5%
4.50	0.510	2.08	99.0%
5.00	0.510	2.08	99.0%
6.00	0.510	2.08	99.0%
7.00	0.510	2.08	99.0%
8.00	0.510	2.08	99.0%
9.00	0.510	2.08	99.0%
10.00	0.520	2.07	98.6%
15.00	0.540	2.05	97.6%
20.00	0.560	2.03	96.7%
30.00	0.585	2.01	95.5%
40.00	0.605	1.99	94.5%
50.00	0.626	1.96	93.5%
60.00	0.665	1.93	91.7%
90.00	0.730	1.86	88.6%
120.00	0.800	1.79	85.2%
180.00	0.900	1.69	80.5%
225.00	0.970	1.62	77.1%
4320.00	1.450	1.14	54.3%
180.00	1.000	1.59	75.7%

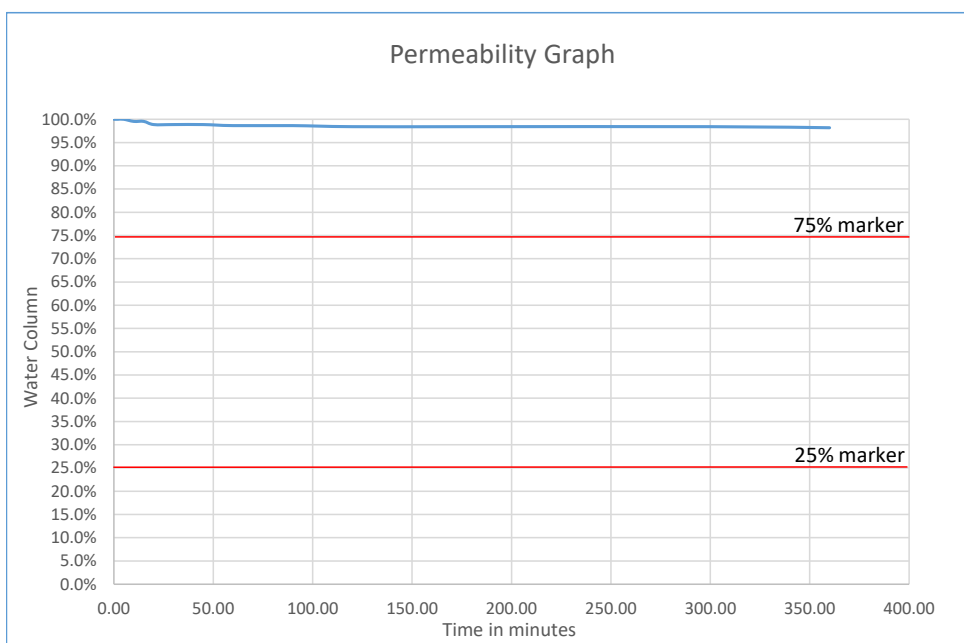
Pit Size		Time in mins	
Length	1.60	n/a	75%
Width	0.40	n/a	25%
Depth	2.59		

Water level did not drop to the 25% marker therefore infiltration rate cannot be calculated



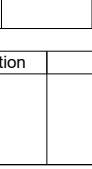






APPENDIX 4 – ENGINEERING LOGS

 Ridge and Partners LLP www.ridge.co.uk		Cable Percussive Borehole Log				Borehole No. BH01 Sheet 1 of 2			
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: Dando 3000		Depth: 20.00m		Hole Type: CP	
Project ID: 5019962		Date: 18/10/2022 - 19/10/2022		Co-cords: E449022.00 N116465.00		Level: 21.00m AoD		Scale: 1:55	

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10 - 1.10	B		0.40	20.60		Grass over soft to firm dark brown slightly sandy silty CLAY. Sand is fine to medium. (Topsoil)	1
		1.20 - 1.65 1.20	D SPT	N=5 (1,0/1,1,1,2)				Soft to firm light yellowish brown mottled light grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)	
		1.50 - 2.00	B		2.50	18.50			2
		2.00 - 2.45 2.00	D SPT	N=7 (1,1/2,2,1,2)					
		2.50 - 3.00	B					Firm dark grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)	
		3.00 - 3.45 3.00	D SPT	N=8 (1,2/2,2,2,2)		4			
		4.00 - 4.45 4.00	D SPT	N=9 (1,2/2,2,2,3)					
		5.00 - 5.45 5.00	D SPT	N=11 (1,1/2,2,3,4)	7.00		14.00		
		6.00 - 6.10	D						
		6.50 - 6.95 6.50	D SPT	N=16 (2,3/3,4,4,5)					
		7.50 - 7.60	D		8		Very stiff dark grey sandy silty CLAY with frequent sand bands. Sand is fine to medium. (The Bracklesham Group)	7	
8.00 - 8.45 8.00	D SPT	N=18 (2,3/3,5,5,5)							
9.00 - 9.10	D								
9.50 - 9.95 9.50	D SPT	N=23 (2,3/5,5,6,7)	9			8			
10.50 - 10.60	D								
11.00 - 11.45	D								

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

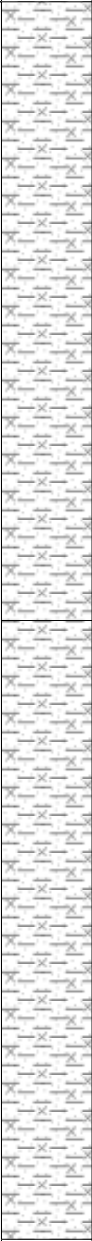
Remarks:
CAT and Genny scanned prior to excavation. Hand dug trial pit to 1.20m prior to drilling. Drilled to 20m depth. Groundwater strike at 5.00m rising to 2.80m and at 11.00m rising to 9.20m. Backfilled with arisings on completion.
Logged in general accordance with BS 5930: Code of practice for ground investigations.



 Ridge and Partners LLP www.ridge.co.uk		Cable Percussive Borehole Log				Borehole No. BH01 Sheet 2 of 2					
Project Name: One Horton Heath		Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA					
Location: SO30 2HU		Equipment: Dando 3000		Depth: 20.00m		Hole Type: CP					
Project ID: 5019962	Date: 18/10/2022 - 19/10/2022	Co-cords: E449022.00 N116465.00		Level: 21.00m AoD		Scale: 1:55					
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results							
		11.00	SPT	N=23 (3,4/5,5,6,7)	15.00	6.00		Very stiff dark grey sandy silty CLAY with frequent sand bands. Sand is fine to medium. (The Bracklesham Group)			
		12.00 - 12.10	D							12	
		12.50 - 12.95 12.50	D SPT	N=25 (3,3/5,6,7,7)						13	
		13.50 - 13.60	D								
		14.00 - 14.45 14.00	D SPT	N=30 (3,4/6,7,8,9)						14	
		15.00 - 15.10	D							15	
		15.50 - 15.95 15.50	D SPT	N=29 (4,4/6,6,8,9)						16	
		16.50 - 16.60	D								
		17.00 - 17.45 17.00	D SPT	N=35 (4,5/7,8,10,10)						17	
		18.00 - 18.10	D							18	
		18.50 - 18.95 18.50	D SPT	N=37 (4,5/6,8,11,12)						19	
		19.50 - 19.60	D								
		20.00 - 20.45 20.00	D SPT	N=43 (5,5/9,10,12,12)					20.00	1.00	
								21			
								22			
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation
Remarks: CAT and Genny scanned prior to excavation. Hand dug trial pit to 1.20m prior to drilling. Drilled to 20m depth. Groundwater strike at 5.00m rising to 2.80m and at 11.00m rising to 9.20m. Backfilled with arisings on completion.											
Logged in general accordance with BS 5930: Code of practice for ground investigations.											

		Ridge and Partners LLP www.ridge.co.uk		Cable Percussive Borehole Log				Borehole No. BH02 Sheet 1 of 2			
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA			
Location: SO30 2HU				Equipment: Dando 3000		Depth: 20.00m		Hole Type: CP			
Project ID: 5019962		Date: 19/10/2022 - 20/10/2022		Co-cords: E449019.00 N116480.00		Level: 21.00m AoD		Scale: 1:55			
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results							
		0.50 - 0.60	D		0.40	20.60		Grass over firm dark brown slightly sandy silty CLAY. Sand is fine to medium. (Topsoil)	1		
		1.20 - 1.65 1.20 1.50 - 2.00	D SPT B	N=7 (1,1/2,2,2,1)				Soft to firm light yellowish brown mottled light grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)			
		2.00 - 2.45 2.00	D SPT	N=7 (1,1/1,2,2,2)	3.00	18.00		Firm to very stiff dark grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)	2		
		3.00 - 3.45 3.00	D SPT	N=8 (1,2/2,2,2,2)							
		3.50 - 4.00	B		4.00	12.00		Very stiff firm dark grey sandy silty CLAY with frequent sand bands. Sand is fine to medium. (The Bracklesham Group)	3		
		4.00 - 4.45 4.00	D SPT	N=10 (1,2/2,2,3,3)							
		5.00 - 5.45 5.00	D SPT	N=11 (2,2/2,3,3,3)	9.00	12.00			4		
		6.00 - 6.10	D								
		6.50 - 6.95 6.50	D SPT	N=19 (3,4/4,4,5,6)	10.50	10.60			5		
		7.50 - 7.60	D								
		8.00 - 8.45 8.00	D SPT	N=21 (3,3/4,5,5,7)	11.00	11.45			6		
9.00 - 9.10	D										
9.50 - 9.95 9.50	D SPT	N=22 (3,3/5,5,6,6)					7				
10.50 - 10.60	D										
		11.00 - 11.45	D						8		
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation
Remarks:											
CAT and Genny scanned prior to excavation. Hand dug trial pit to 1.20m prior to drilling. Drilled to 20m depth. Groundwater strike at 4.80m rising to 3.80m and at 8.60m rising to 4.50m. Backfilled with arisings on completion.											
Logged in general accordance with BS 5930: Code of practice for ground investigations.											

 Ridge and Partners LLP www.ridge.co.uk		Cable Percussive Borehole Log				Borehole No. BH02 Sheet 2 of 2			
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: Dando 3000		Depth: 20.00m		Hole Type: CP	
Project ID: 5019962		Date: 19/10/2022 - 20/10/2022		Co-cords: E449019.00 N116480.00		Level: 21.00m AoD		Scale: 1:55	

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		11.00	SPT	N=27 (4,4/5,7,7,8)	15.50	5.50		Very stiff firm dark grey sandy silty CLAY with frequent sand bands. Sand is fine to medium. (The Bracklesham Group)		
		12.00 - 12.10	D							12
		12.50 - 12.95 12.50	D SPT	N=28 (4,4/6,6,8,8)						13
		13.50 - 13.60	D							
		14.00 - 14.45 14.00	D SPT	N=28 (3,3/5,6,7,10)						14
		15.00 - 15.10	D							15
		15.50 - 15.95 15.50	D SPT	N=34 (5,5/8,8,9,9)						16
		16.50 - 16.95	D							
		17.00 - 17.45 17.00	D SPT	N=37 (4,6/8,9,9,11)						17
		18.00 - 18.10	D							18
		18.50 - 18.95 18.50	D SPT	N=39 (5,6/8,9,11,11)						19
		19.50 - 19.60	D							
	20.00 - 20.45 20.00	D SPT	N=42 (5,6/8,10,12,12)	20.00	1.00		End of Borehole at 20.000m	20		
								21		
								22		

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks:
CAT and Genny scanned prior to excavation. Hand dug trial pit to 1.20m prior to drilling. Drilled to 20m depth. Groundwater strike at 4.80m rising to 3.80m and at 8.60m rising to 4.50m. Backfilled with arisings on completion.

Logged in general accordance with BS 5930: Code of practice for ground investigations.



 Ridge and Partners LLP www.ridge.co.uk		Cable Percussive Borehole Log				Borehole No. BH03 Sheet 1 of 2	
Project Name: One Horton Heath		Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU		Equipment: Dando 3000		Depth: 20.00m		Hole Type: CP	
Project ID: 5019962	Date: 20/10/2022	Co-cords: E449053.00 N117029.00		Level: 25.00m AoD		Scale: 1:55	

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10 - 1.10	B		0.37	24.63		Grass over firm dark brown slightly sandy silty CLAY. Sand is fine to medium. (Topsoil)	1
		1.20 - 1.65 1.20	D SPT	N=10 (2,2/2,2,3,3)				Firm to very stiff light yellowish brown slightly sandy silty CLAY. Sand is fine to medium. Becomes stiff with depth. (The Bracklesham Group)	
		1.65 - 2.00	B		4.30	20.70			2
		2.00 - 2.45 2.00	D SPT	N=8 (1,2/2,2,2,2)					
		3.00 - 3.45 3.00	D SPT	N=14 (2,3/3,3,4,4)			3		
		3.50 - 4.00	B						
		4.00 - 4.45 4.00	D SPT	N=19 (2,3/3,5,5,6)			4		
		4.50 - 5.00	B						
		5.00 - 5.45 5.00	D SPT	N=15 (3,3/3,4,4,4)			5		
		6.00 - 6.10	D						
		6.50 - 6.95 6.50	D SPT	N=20 (3,4/4,4,5,7)			6		
		7.50 - 7.60	D						
		8.00 - 8.45 8.00	D SPT	N=20 (2,4/4,4,6,6)			8		
		8.50 - 9.00	B						
		9.50 - 9.95 9.50	D SPT	N=24 (3,4/5,6,6,7)			9		
10.50 - 10.60	D								
11.00 - 11.45	D					10			
								11	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks:
CAT and Genny scanned prior to excavation. Hand dug trial pit to 1.20m prior to drilling. Drilled to 20m depth. Groundwater strike at 6.60m rising to 5.40m and at 13.00m rising to 12.00m. Backfilled with arisings on completion.
Logged in general accordance with BS 5930: Code of practice for ground investigations.



 Ridge and Partners LLP www.ridge.co.uk		Cable Percussive Borehole Log				Borehole No. BH03 Sheet 2 of 2			
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: Dando 3000		Depth: 20.00m		Hole Type: CP	
Project ID: 5019962		Date: 20/10/2022		Co-cords: E449053.00 N117029.00		Level: 25.00m AoD		Scale: 1:55	

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		11.00	SPT	N=27 (4,4/5,7,7,8)	20.00	5.00				
		12.00 - 12.10	D							12
		12.50 - 12.95 12.50	D SPT	N=25 (4,4/4,6,7,8)						13
	▼	13.50 - 13.60	D							
		14.00 - 14.45 14.00	D SPT	N=26 (4,4/5,6,6,9)						14
		15.00 - 15.10	D							15
		15.50 - 15.95 15.50	D SPT	N=31 (4,5/7,7,8,9)						16
		16.50 - 16.60	D							
		17.00 - 17.45 17.00	D SPT	N=36 (5,5/8,8,9,11)						17
		18.00 - 18.50	B							18
		18.50 - 18.95 18.50	D SPT	N=38 (5,6/7,9,10,12)						19
		19.50 - 19.60	D							
		20.00 - 20.45 20.00	D SPT	N=40 (5,6/8,9,11,12)						20
	End of Borehole at 20.000m							21		
								22		

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks:
CAT and Genny scanned prior to excavation. Hand dug trial pit to 1.20m prior to drilling. Drilled to 20m depth. Groundwater strike at 6.60m rising to 5.40m and at 13.00m rising to 12.00m. Backfilled with arisings on completion.

Logged in general accordance with BS 5930: Code of practice for ground investigations.



 Ridge and Partners LLP www.ridge.co.uk		Cable Percussive Borehole Log				Borehole No. BH04 Sheet 1 of 2			
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: Dando 3000		Depth: 20.00m		Hole Type: CP	
Project ID: 5019962		Date: 21/10/2022 - 24/10/2022		Co-cords: E449068.00 N117053.00		Level: 25.00m AoD		Scale: 1:55	

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results							
		0.00 - 1.00	B		0.40	24.60		Firm dark brown slightly sandy silty CLAY. Sand is fine to medium. (Topsoil)			
								Firm light yellowish brown slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)	1		
		1.20 - 1.65 1.20	D SPT	N=6 (1,1/1,1,2,2)							
		1.50 - 2.00	B								
		2.00 - 2.45 2.00	D SPT	N=6 (1,1/1,2,2,1)					2		
		2.50 - 3.00	B		2.50	22.50					
		3.00 - 4.00 3.00	B SPT	N=14 (2,3/2,4,4,4)				Stiff to very stiff light brown sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)	3		
		4.00 - 4.45 4.00	D SPT	N=17 (3,3/3,4,5,5)					4		
		5.00 - 5.45 5.00	D SPT	N=16 (3,3/3,3,5,5)	4.50	20.50					
		6.00 - 6.10	D								5
		6.50 - 6.95 6.50	D SPT	N=19 (3,3/5,5,5,4)							6
		7.00 - 7.10	D								7
		8.00 - 8.45 8.00	D SPT	N=23 (2,4/5,6,6,6)							8
	9.00 - 10.00	B								9	
	9.50 - 9.95 9.50	D SPT	N=28 (3,5/5,7,7,9)								
	10.50 - 10.60	D							10		
	11.00 - 11.45	D							11		

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks:
CAT and Genny scanned prior to excavation. Hand dug trial pit to 1.20m prior to drilling. Drilled to 20m depth. Groundwater strike at 13.00m rising to 5.00m. Backfilled with arisings on completion.
Logged in general accordance with BS 5930: Code of practice for ground investigations.



 Ridge and Partners LLP www.ridge.co.uk		Cable Percussive Borehole Log				Borehole No. BH04 Sheet 2 of 2			
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: Dando 3000		Depth: 20.00m		Hole Type: CP	
Project ID: 5019962		Date: 21/10/2022 - 24/10/2022		Co-cords: E449068.00 N117053.00		Level: 25.00m AoD		Scale: 1:55	

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		11.00	SPT	N=29 (4,4/6,7,7,9)	20.00	5.00				
		12.00 - 12.10	D							12
		12.50 - 12.96 12.50	D SPT	N=31 (4,5/8,8,7,8)						13
	▼	13.50 - 13.60	D							
		14.00 - 14.45 14.00	D SPT	N=31 (4,5/6,8,8,9)						14
		15.00 - 15.10	D							15
		15.50 - 15.95 15.50	D SPT	N=35 (5,5/8,8,9,10)						16
		16.50 - 16.60	D							
		17.00 - 17.45 17.00	D SPT	N=36 (5,6/7,9,9,11)						17
		18.00 - 18.10	D							18
		18.50 - 18.95 18.50	D SPT	N=36 (5,6/7,8,10,11)						19
		19.50 - 19.60	D							
		20.00 - 20.45 20.00	D SPT	N=39 (5,5/8,9,9,13)						20
	End of Borehole at 20.000m							21		
								22		

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks:
CAT and Genny scanned prior to excavation. Hand dug trial pit to 1.20m prior to drilling. Drilled to 20m depth. Groundwater strike at 13.00m rising to 5.00m. Backfilled with arisings on completion.

Logged in general accordance with BS 5930: Code of practice for ground investigations.



		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. SA01 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 24/10/2022		Co-ords: E448694.00 N116213.00		Level: 21.55m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
0.30 1.50 2.40 2.50		21.55		Grass over firm dark brown slightly sandy silty CLAY. Sand is fine to medium. (Topsoil)		0.10	ES		
		21.25		Soft to firm light yellowish brown mottled brown slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
		20.05		Soft to firm light yellowish brown mottled light grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)		2.00	B		
		19.15		Soft to firm dark grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
		19.05		End of Trial Pit at 2.500m					
Dimensions Pit Length 2.50 Pit Width 0.30				Soakage Test Information Test Number Date Test Depth Start Depth End Duration				Trial Pit Support Pit Stability Pit remained stable Shoring Used no	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Soakaway test conducted in pit. Backfilled with arisings on completion. Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. SA02 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By:	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 24/10/2022		Co-ords: E448652.00 N116394.00		Level: 19.50m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
1	0.30	19.50		Grass over firm dark brown slightly sandy silty CLAY. Sand is fine to medium. (Topsoil)		0.20	ES		
		19.20		Soft to firm light yellowish brown mottled brown slightly gravelly slightly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)					
	1.10	18.40		Soft to firm light yellowish brown mottled light grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
		17.30		Soft to firm dark grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
2	2.20	17.30							
	2.50	17.00		End of Trial Pit at 2.500m					
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
2.60	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Soakaway test conducted in pit. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. SA03 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 27/10/2022		Co-ords: E448366.00 N116645.00		Level: 17.60m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
1	0.30	17.60		Grass over dark brown sandy silty CLAY. Sand if fine to medium. (Topsoil)		0.20	ES		
		17.30		Light orangish brown sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	1.20	16.40		Light orangish brown mottled light grey slightly gravelly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)		1.50	LB		
2	2.50	15.10	End of Trial Pit at 2.500m						
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.80	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Soakaway test conducted in pit. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. SA04 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By:	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 24/10/2022		Co-ords: E448757.00 N116682.00		Level: 20.40m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
0.40 1.50 2.30 2.50		20.40		Grass over firm dark brown slightly gravelly slightly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (Topsoil)		0.30	LB		
		20.00		Soft to firm light yellowish brown mottled brown slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
		18.90		Soft to firm light yellowish brown mottled light grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
		18.10		Soft to firm dark grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
		17.90		End of Trial Pit at 2.500m					
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length 2.60		Pit Width 0.30		Test Number	Date Test	Depth Start	Depth End	Duration	
					Pit Stability Pit remained stable		Shoring Used No		
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Soakaway test conducted in pit. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

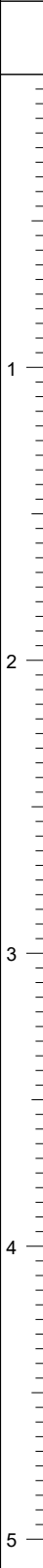
 Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. SA05 Sheet 1 of 1		
Project Name: One Horton Heath			Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By:	
Location: SO30 2HU			Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 25/10/2022	Co-ords: E449212.00 N116646.00		Level: 24.65m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing		
						Depth (m)	Type	Results
1 2 3 4 5	0.35	24.65		Grass over dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)		0.20	ES	
		24.30		Light orangish brown slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)				
	1.20	23.45		Light orangish brown slightly gravelly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)		1.50	LB	
		22.35		Light blueish grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)				
	2.50	22.15	End of Trial Pit at 2.500m					
Dimensions			Soakage Test Information				Trial Pit Support	
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used
1.80	0.30						Pit remained stable	No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Soakaway test conducted in pit. Backfilled with arisings on completion.								
Logged in general accordance with BS 5930: Code of practice for ground investigations.								

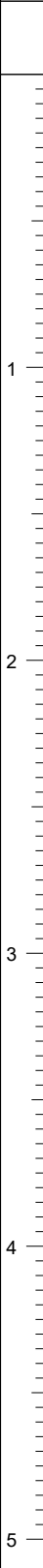
 Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. SA06 Sheet 1 of 1			
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By:	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448920.00 N117155.00		Level: 23.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
1	0.30	23.00		Grass over firm dark brown slightly sandy silty CLAY. Sand is fine to medium. (Topsoil)		0.20	ES		
		22.70		Soft to firm light yellowish brown mottled light blueish grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)		1.60	LB		
2	2.50	20.50		End of Trial Pit at 2.500m					
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
2.10	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Soakaway test conducted in pit. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

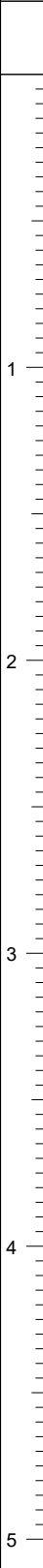
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. SA07 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By:		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP		
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448715.00 N117221.00		Level: 21.30m AoD		Scale: 1:25		
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing				
						Depth (m)	Type	Results		
0.39 1 2 3 4 5		21.30		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)		0.20	ES			
	0.39	20.91		Soft to firm light orangish brown mottled light brown sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)		1.70	LB			
	2.50	18.80	End of Trial Pit at 2.500m							
Dimensions			Soakage Test Information				Trial Pit Support			
Pit Length 1.70		Pit Width 0.30		Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability Pit remained stable	Shoring Used No
Remarks										
CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Soakaway test conducted in pit. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

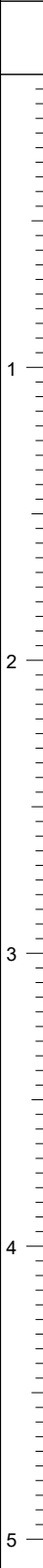
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. SA08 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448530.00 N117262.00		Level: 19.80m AoD		Scale: 1:25	
0.45 1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
		19.80		Grass over firm dark brown slightly sandy silty CLAY. Sand is fine to medium. (Topsoil)			0.20	ES	
		19.35		Soft to firm light orangish brown mottled light brown sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)			1.70	LB	
		17.60		Dark blueish grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	2.20	17.60							
	2.50	17.30		End of Trial Pit at 2.500m					
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.65	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Soakaway test conducted in pit. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. SA10 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 26/10/2022		Co-ords: E448728.00 N117682.00		Level: 22.35m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
1	0.35	22.35		Grass over dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)		0.10	ES		
		22.00		Stiff light orangish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)		1.20	LB		
	1.50	20.85		Firm to stiff light orangish brown mottled light greyish brown slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
2	2.50	19.85	End of Trial Pit at 2.500m						
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
2.00	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Soakaway test conducted in pit. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

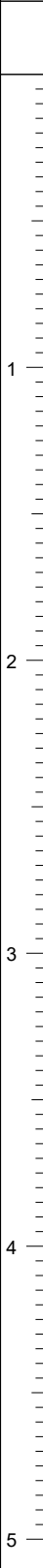
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. SA09 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 26/10/2022		Co-ords: E449083.00 N117332.00		Level: 26.90m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.30	26.90		Dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)			0.15	ES	
		26.60		Firm light orangish brown mottled light grey slightly gravelly slightly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)			1.30	LB	
	2.20	24.70		Firm light blueish grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	2.50	24.40		End of Trial Pit at 2.500m					
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability		Shoring Used
1.70	0.30						Pit remained stable		No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Soakaway test conducted in pit. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. SA11 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 26/10/2022		Co-ords: E448931.00 N117775.00		Level: 23.50m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.34	23.50		Dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)			0.20	ES	
		23.16		Firm light orangish brown slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)			1.00	LB	
	1.50	22.00		Firm to stiff light orangish brown mottled light greyish brown slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	2.50	21.00		End of Trial Pit at 2.500m					
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.70	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Soakaway test conducted in pit. Backfilled with arisings on completion. Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP01 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 27/10/2022		Co-ords: E449170.00 N116413.00		Level: 26.00m AoD		Scale: 1:25		
	Depth (m)	Level (mAOD)	Legend	Stratum Description			Water Strikes	Sample and In Situ Testing		
								Depth (m)	Type	Results
	0.35	26.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)						
		25.65		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)						
1	1.00	25.00		End of Trial Pit at 1.000m				1.00	B	
2										
3										
4										
5										
Dimensions			Soakage Test Information					Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used		
1.70	0.30						Pit remained stable	No		
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

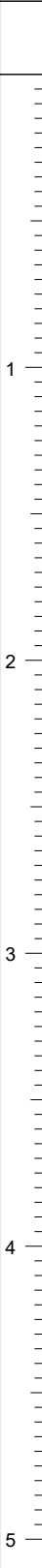
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP02 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 27/10/2022		Co-ords: E449066.00 N116470.00		Level: 22.00m AoD		Scale: 1:25		
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing			
							Depth (m)	Type	Results	
	0.35	22.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)						
		21.65		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)						
	1.00	21.00		End of Trial Pit at 1.000m			1.00	B		
Dimensions			Soakage Test Information				Trial Pit Support			
Pit Length 1.70		Pit Width 0.30		Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability Pit remained stable	Shoring Used No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

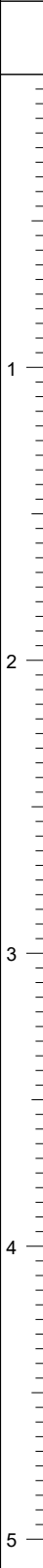


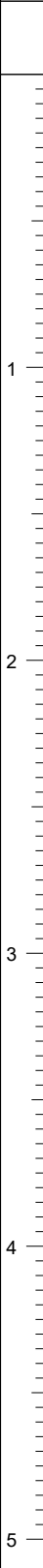
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP03 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 28/10/2022		Co-ords: E448991.00 N116517.00		Level: 23.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.36	23.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)			0.30	ES	
		22.64		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)			0.50	LB	
	1.00	22.00		End of Trial Pit at 1.000m			1.00	B	
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability		Shoring Used
1.30	0.30						Pit remained stable		No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion. Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP04 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 28/10/2022		Co-ords: E448729.00 N116530.00		Level: 24.00m AoD		Scale: 1:25	
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.30	24.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)			1.00	B	
		23.70		Light orangish brown mottled light grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is subrounded to rounded fine to medium flint. (The Bracklesham Group)					
0.80	23.20		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)						
	1.00	23.00		End of Trial Pit at 1.000m					
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.30	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP05 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 28/10/2022		Co-ords: E448624.00 N116523.00		Level: 23.00m AoD		Scale: 1:25	
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.30	23.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)			1.00	B	
		22.70		Light orangish brown mottled light grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is subrounded to rounded fine to medium flint. (The Bracklesham Group)					
0.80	22.20		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)						
1.00	22.00		End of Trial Pit at 1.000m						
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length 1.40		Pit Width 0.30		Test Number	Date Test	Depth Start	Depth End	Duration	
Pit Stability Pit remained stable									Shoring Used No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP06 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 28/10/2022		Co-ords: E448782.00 N116551.00		Level: 23.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.39	23.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)					
		22.61		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	1.00	22.00		End of Trial Pit at 1.000m			1.00	B	
Dimensions		Soakage Test Information						Trial Pit Support	
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.40	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP07 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 27/10/2022		Co-ords: E449238.00 N116551.00		Level: 26.00m AoD		Scale: 1:25		
	Depth (m)	Level (mAOD)	Legend	Stratum Description			Water Strikes	Sample and In Situ Testing		
								Depth (m)	Type	Results
	0.35	26.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)						
		25.65		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)						
	1.00	25.00		End of Trial Pit at 1.000m				1.00	B	
Dimensions		Soakage Test Information						Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used		
1.40	0.30						Pit remained stable	No		
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

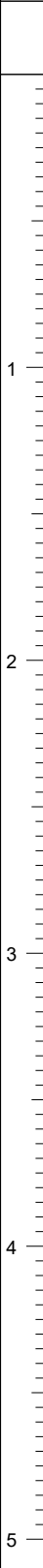
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP08 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 27/10/2022		Co-ords: E449110.00 N116563.00		Level: 24.00m AoD		Scale: 1:25		
	Depth (m)	Level (mAOD)	Legend	Stratum Description			Water Strikes	Sample and In Situ Testing		
								Depth (m)	Type	Results
	0.35	24.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)						
		23.65		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)						
1	1.00	23.00		End of Trial Pit at 1.000m				1.00	B	
2										
3										
4										
5										
Dimensions			Soakage Test Information					Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used		
1.30	0.30						Pit remained stable	No		
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

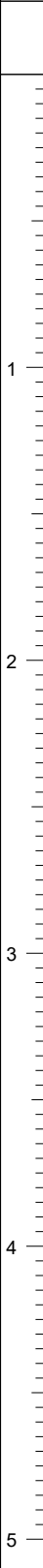
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP09 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 28/10/2022		Co-ords: E449030.00 N116597.00		Level: 26.00m AoD		Scale: 1:25		
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing			
							Depth (m)	Type	Results	
	0.34	26.00		Grass over firm dark brown slightly gravelly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (Topsoil)			0.50	LB		
		25.66		Firm dark orangish brown slightly gravelly sandy silty CLAY. Gravel is subrounded fine to medium flint. (The Bracklesham Group)						
0.90	25.10		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)			1.00	B			
1.00	25.00		End of Trial Pit at 1.000m							
Dimensions Pit Length 1.20 Pit Width 0.30				Soakage Test Information Test Number Date Test Depth Start Depth End Duration				Trial Pit Support Pit Stability Pit remained stable Shoring Used No		
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion. Logged in general accordance with BS 5930: Code of practice for ground investigations.										

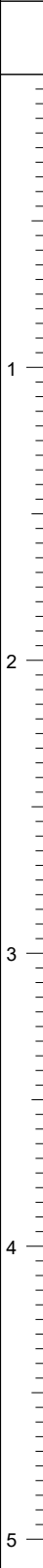
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP10 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 28/10/2022		Co-ords: E448835.00 N116665.00		Level: 24.00m AoD		Scale: 1:25		
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description			Water Strikes	Sample and In Situ Testing		
								Depth (m)	Type	Results
	0.40	24.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)						
		23.60		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)						
	1.00	23.00		End of Trial Pit at 1.000m				1.00	B	
Dimensions		Soakage Test Information						Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability		Shoring Used	
1.30	0.30						Pit remained stable		No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

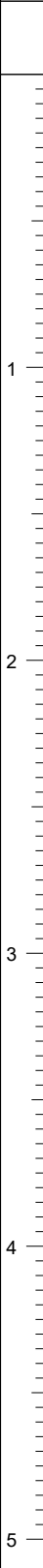
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP11 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 27/10/2022		Co-ords: E448361.00 N116660.00		Level: 21.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
1	0.30	21.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)		1.00	B		
		20.70		Firm light orangish brown sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	1.00	20.00		End of Trial Pit at 1.000m					
2									
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.20	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP12 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 27/10/2022		Co-ords: E448430.00 N116735.00		Level: 20.00m AoD		Scale: 1:25		
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description			Water Strikes	Sample and In Situ Testing		
								Depth (m)	Type	Results
	0.30	20.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)						
		19.70		Firm light orangish brown sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)						
	1.00	19.00		End of Trial Pit at 1.000m				1.00	B	
Dimensions		Soakage Test Information						Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used		
1.30	0.30						Pit remained stable	No		
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion. Logged in general accordance with BS 5930: Code of practice for ground investigations.										

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP13 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 28/10/2022		Co-ords: E448992.00 N116675.00		Level: 27.00m AoD		Scale: 1:25		
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing			
							Depth (m)	Type	Results	
	0.34	27.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)			0.20	ES		
		26.66		Soft to firm light orangish brown mottled light grey slightly gravelly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)			0.60	LB		
1.00	26.00		End of Trial Pit at 1.000m		1.00	B				
Dimensions			Soakage Test Information				Trial Pit Support			
Pit Length 1.30		Pit Width 0.30		Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability Pit remained stable	Shoring Used No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP14 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 27/10/2022		Co-ords: E449260.00 N116604.00		Level: 28.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.35	28.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)					
		27.65		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
1	1.00	27.00		End of Trial Pit at 1.000m			1.00	B	
2									
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.40	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

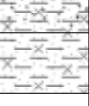
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP15 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 27/10/2022		Co-ords: E449187.00 N116653.00		Level: 28.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.35	28.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)					
		27.65		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	1.00	27.00		End of Trial Pit at 1.000m			1.00	B	
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability		Shoring Used
1.20	0.30						Pit remained stable		No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion. Logged in general accordance with BS 5930: Code of practice for ground investigations.									

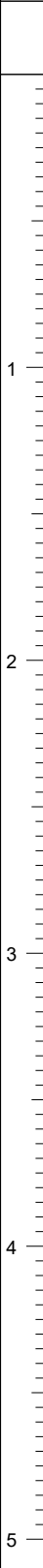
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP16 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 27/10/2022		Co-ords: E449168.00 N116686.00		Level: 26.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.35	26.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)					
		25.65		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	1.00	25.00		End of Trial Pit at 1.000m			1.00	B	
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.20	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP17 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 28/10/2022		Co-ords: E448957.00 N116745.00		Level: 27.00m AoD		Scale: 1:25	
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.36	27.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)			0.50	LB	
		26.64		Soft to firm light orangish brown mottled light grey slightly gravelly slightly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)					
0.80	26.20		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)			1.00	B		
1.00	26.00								
End of Trial Pit at 1.000m									
Dimensions Pit Length 1.30 Pit Width 0.30				Soakage Test Information Test Number Date Test Depth Start Depth End Duration				Trial Pit Support Pit Stability Pit remained stable Shoring Used No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion. Logged in general accordance with BS 5930: Code of practice for ground investigations.									

 Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP18 Sheet 1 of 1			
Project Name: One Horton Heath			Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU			Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 28/10/2022		Co-ords: E448900.00 N116755.00		Level: 26.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
1		26.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)		1.00	B		
	0.40	25.60		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	1.00	25.00	End of Trial Pit at 1.000m						
2									
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.30	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP19 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 27/10/2022		Co-ords: E448462.00 N116839.00		Level: 19.00m AoD		Scale: 1:25	
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.30	19.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)					
		18.70		Firm light orangish brown sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	1.00	18.00		End of Trial Pit at 1.000m			1.00	B	
Dimensions		Soakage Test Information						Trial Pit Support	
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.40	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP20 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 28/10/2022		Co-ords: E448932.00 N116799.00		Level: 26.00m AoD		Scale: 1:25		
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description			Water Strikes	Sample and In Situ Testing		
								Depth (m)	Type	Results
	0.36	26.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)				0.20	ES	
	0.80	25.64		Soft to firm light orangish brown mottled light grey slightly gravelly sandy silty CLAY. Sand is fine to coarse. Gravel is subrounded fine to medium flint. (The Bracklesham Group)				0.50	LB	
	1.00	25.20		Firm light grey mottled orangish reddish brown slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)				1.00	B	
		25.00		End of Trial Pit at 1.000m						
Dimensions			Soakage Test Information					Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used		
1.30	0.30						Pit remained stable	No		
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

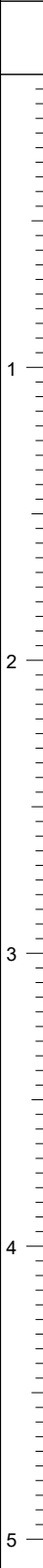
 Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP21 Sheet 1 of 1			
Project Name: One Horton Heath			Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU			Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 27/10/2022		Co-ords: E449167.00 N116792.00		Level: 28.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
	0.35	28.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)					
		27.65		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	1.00	27.00		End of Trial Pit at 1.000m		1.00	B		
Dimensions		Soakage Test Information				Trial Pit Support			
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.40	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion. Logged in general accordance with BS 5930: Code of practice for ground investigations.									

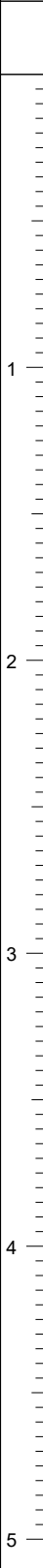
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP22 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 28/10/2022		Co-ords: E448942.00 N116834.00		Level: 27.00m AoD		Scale: 1:25		
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description			Water Strikes	Sample and In Situ Testing		
								Depth (m)	Type	Results
	0.30	27.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)						
		26.70		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)						
	1.00	26.00		End of Trial Pit at 1.000m				1.00	B	
Dimensions		Soakage Test Information						Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used		
1.40	0.30						Pit remained stable	No		
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

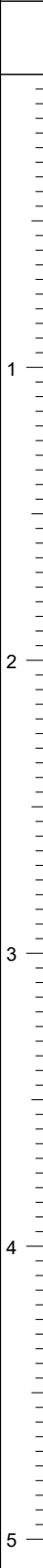
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP23 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 27/10/2022		Co-ords: E448486.00 N116910.00		Level: 19.00m AoD		Scale: 1:25		
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description			Water Strikes	Sample and In Situ Testing		
								Depth (m)	Type	Results
	0.30	19.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)						
		18.70		Firm light orangish brown sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)						
	1.00	18.00		End of Trial Pit at 1.000m				1.00	B	
Dimensions		Soakage Test Information						Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used		
1.20	0.30						Pit remained stable	No		
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

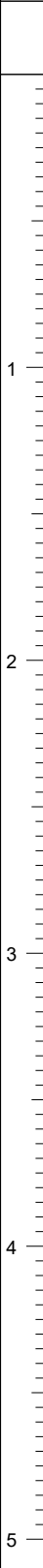
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP24 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 28/10/2022		Co-ords: E448973.00 N116880.00		Level: 28.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
1	0.10	28.00 27.90		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)		0.20	ES		
		Soft to firm light orangish brown mottled light grey slightly gravelly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)		0.50		LB			
	1.00	27.00		End of Trial Pit at 1.000m		1.00	B		
2									
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length 1.20		Pit Width 0.30		Test Number	Date Test	Depth Start	Depth End	Duration	
Pit Stability Pit remained								Shoring Used No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

 Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP25 Sheet 1 of 1			
Project Name: One Horton Heath			Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU			Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 28/10/2022		Co-ords: E448977.00 N116921.00		Level: 27.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
1	0.20	27.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)		1.00	B		
		26.80		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	1.00	26.00	End of Trial Pit at 1.000m						
2									
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.40	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

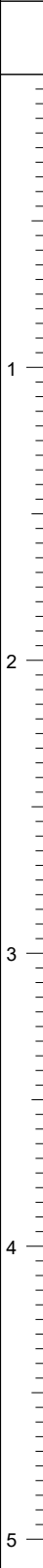
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP26 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 28/10/2022		Co-ords: E449007.00 N116972.00		Level: 27.00m AoD		Scale: 1:25		
	Depth (m)	Level (mAOD)	Legend	Stratum Description			Water Strikes	Sample and In Situ Testing		
								Depth (m)	Type	Results
	0.34	27.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)				0.20	ES	
		26.66		Soft to firm light orangish brown mottled light grey slightly gravelly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)				0.50	LB	
1	1.00	26.00		End of Trial Pit at 1.000m				1.00	B	
2										
3										
4										
5										
Dimensions			Soakage Test Information					Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used		
1.40	0.30						Pit remained stable	No		
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP27 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 28/10/2022		Co-ords: E449003.00 N117013.00		Level: 27.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.32	27.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)					
		26.68		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
1	1.00	26.00		End of Trial Pit at 1.000m			1.00	B	
2									
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.20	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP28 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 28/10/2022		Co-ords: E449055.00 N117023.00		Level: 28.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.36	28.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)					
		27.64		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
1	1.00	27.00		End of Trial Pit at 1.000m			1.00	B	
2									
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.30	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP29 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 28/10/2022		Co-ords: E449236.00 N117024.00		Level: 29.00m AoD		Scale: 1:25		
	Depth (m)	Level (mAOD)	Legend	Stratum Description			Water Strikes	Sample and In Situ Testing		
								Depth (m)	Type	Results
	0.30	29.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)						
		28.70		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)						
1	1.00	28.00		End of Trial Pit at 1.000m				1.00	B	
2										
3										
4										
5										
Dimensions			Soakage Test Information					Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used		
1.30	0.30						Pit remained stable	No		
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

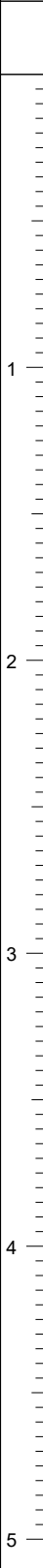
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP30 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 28/10/2022		Co-ords: E449164.00 N117042.00		Level: 27.00m AoD		Scale: 1:25		
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description			Water Strikes	Sample and In Situ Testing		
								Depth (m)	Type	Results
	0.30	27.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)						
		26.70		Soft to firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)						
	1.00	26.00		End of Trial Pit at 1.000m				1.00	B	
Dimensions		Soakage Test Information						Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used		
1.30	0.30						Pit remained stable	No		
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP31 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 25/10/2022		Co-ords: E449063.00 N117108.00		Level: 28.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.37	28.00		Grass over firm dark brown slightly sandy silty CLAY. Sand is fine to medium. (Topsoil)			0.10	ES	
		27.63		Soft to firm light orangish brown mottled light brown slightly gravelly slightly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)			0.50	LB	
1	1.00	27.00		End of Trial Pit at 1.000m			1.00	B	
2									
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.80	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

 Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP32 Sheet 1 of 1			
Project Name: One Horton Heath			Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU			Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 25/10/2022		Co-ords: E449023.00 N117177.00		Level: 27.00m AoD		Scale: 1:25	
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
	0.38	27.00		Grass over firm dark brown slightly gravelly slightly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (Topsoil)		0.40	LB		
	1.00	26.62		Soft to firm light orangish brown mottled light grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)		1.00	B		
		26.00		End of Trial Pit at 1.000m					
Dimensions		Soakage Test Information				Trial Pit Support			
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.80	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

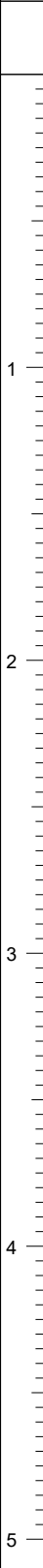
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP33 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448970.00 N117206.00		Level: 25.00m AoD		Scale: 1:25		
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description			Water Strikes	Sample and In Situ Testing		
								Depth (m)	Type	Results
	0.30	25.00		Grass over firm dark brown slightly sandy silty CLAY. Sand is fine to medium. (Topsoil)				0.30	ES	
		24.70		Light orangish brown mottled light grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is subrounded to rounded fine to medium flint. (The Bracklesham Group)				0.70	LB	
	1.00	24.00		End of Trial Pit at 1.000m				1.00	B	
Dimensions		Soakage Test Information						Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used		
1.90	0.30						Pit remained stable	No		
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

 Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP34 Sheet 1 of 1			
Project Name: One Horton Heath			Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU			Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448828.00 N117201.00		Level: 26.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
1	0.34	26.00		Soft to firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)		0.80	LB		
		25.66		Soft to firm light orangish brown mottled light brown sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	1.00	25.00	End of Trial Pit at 1.000m						1.00
2									
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.30	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

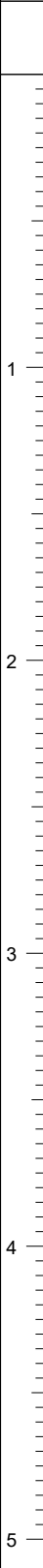
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP35 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448741.00 N117222.00		Level: 27.00m AoD		Scale: 1:25		
	Depth (m)	Level (mAOD)	Legend	Stratum Description			Water Strikes	Sample and In Situ Testing		
								Depth (m)	Type	Results
	0.30	27.00		Soft to firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)						
		26.70		Soft to firm light orangish brown mottled light brown sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)						
1	1.00	26.00		End of Trial Pit at 1.000m				1.00	B	
2										
3										
4										
5										
Dimensions			Soakage Test Information					Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used		
1.30	0.30						Pit remained stable	No		
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

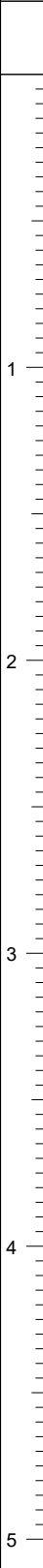
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP36 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448645.00 N117223.00		Level: 24.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
1	0.34	24.00		Soft to firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)		1.00	B		
		23.66		Soft to firm light orangish brown mottled light brown sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	1.00	23.00		End of Trial Pit at 1.000m					
2									
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.30	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

 Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP37 Sheet 1 of 1			
Project Name: One Horton Heath			Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU			Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448540.00 N117256.00		Level: 23.00m AoD		Scale: 1:25	
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.30	23.00		Firm dark brown slightly gravelly sandy silty CLAY. Sand is fine to coarse. Gravel is subrounded fine to medium flint. (Topsoil)					
		22.70		Soft to firm light yellowish brown mottled light brown sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	1.00	22.00		End of Trial Pit at 1.000m			1.00	B	
Dimensions		Soakage Test Information					Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability		Shoring Used
1.30	0.30						Pit remained stable		No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion. Logged in general accordance with BS 5930: Code of practice for ground investigations.									

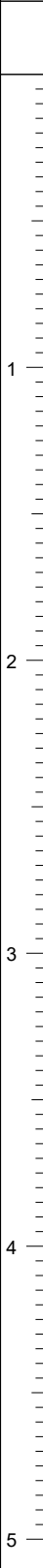
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP38 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448449.00 N117251.00		Level: 19.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.48	19.00		Grass over firm dark brown slightly sandy silty CLAY. Sand is fine to medium. (Topsoil)					
		18.52		Soft to firm light orangish brown mottled light brown sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
1	1.00	18.00		End of Trial Pit at 1.000m			1.00	B	
2									
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.50	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP39 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448869.00 N117241.00		Level: 26.00m AoD		Scale: 1:25	
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.37	26.00		Soft to firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)					
		25.63		Soft to firm light orangish brown mottled light brown slightly gravelly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)			0.70	LB	
	1.00	25.00		End of Trial Pit at 1.000m			1.00	B	
Dimensions		Soakage Test Information					Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability		Shoring Used
1.40	0.30						Pit remained stable		No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP40 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448852.00 N117298.00		Level: 25.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.40	25.00		Soft to firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)			0.10	ES	
		24.60		Soft to firm light orangish brown mottled light brown slightly gravelly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)			0.60	LB	
	1.00	24.00		End of Trial Pit at 1.000m			1.00	B	
Dimensions			Soakage Test Information					Trial Pit Support	
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability		Shoring Used
1.60	0.30						Pit remained stable		No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP41 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448747.00 N117262.00		Level: 23.00m AoD		Scale: 1:25		
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing			
							Depth (m)	Type	Results	
	0.36	23.00		Soft to firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)			0.40	LB		
	1.00	22.64		Soft to firm light orangish brown mottled light brown sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)						
		22.00		End of Trial Pit at 1.000m			1.00	B		
Dimensions			Soakage Test Information				Trial Pit Support			
Pit Length 1.40		Pit Width 0.30		Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability Pit remained stable	Shoring Used No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

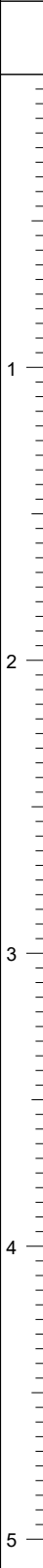
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP42 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448652.00 N117289.00		Level: 23.00m AoD		Scale: 1:25	
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.38	23.00		Soft to firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)			0.30	ES	
		22.62		Soft to firm light orangish brown mottled light brown sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)			0.50	LB	
	1.00	22.00		End of Trial Pit at 1.000m			1.00	B	
Dimensions		Soakage Test Information					Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability		Shoring Used
1.70	0.30						Pit remained stable		No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

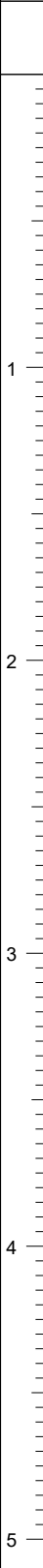
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP43 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448558.00 N117335.00		Level: 22.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.30	22.00		Soft to firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)					
		21.70		Firm light orangish brown slightly gravelly silty clayey fine to medium SAND. Gravel is subrounded fine to medium flint. (The Bracklesham Group)			0.60	LB	
1	1.00	21.00		End of Trial Pit at 1.000m			1.00	B	
2									
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.80	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

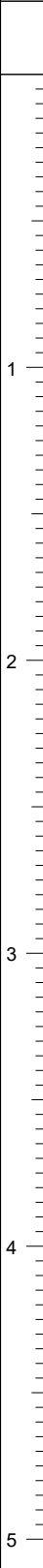
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP44 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP	
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448480.00 N117376.00		Level: 20.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
1	0.40	20.00		Grass over firm dark brown slightly sandy silty CLAY. Sand is fine to medium. (Topsoil)		0.20	ES		
		19.60		Stiff light orangish brown slightly gravelly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint.(The Bracklesham Group)		0.80	LB		
	1.00	19.00	End of Trial Pit at 1.000m			1.00	B		
2									
3									
4									
5									
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.90	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

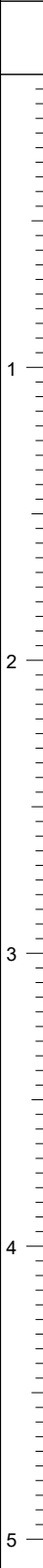
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP45 Sheet 1 of 1		
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA		
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 1.00m		Hole Type: TP		
Project ID: 5019962		Date: 25/10/2022		Co-ords: E448393.00 N117414.00		Level: 18.00m AoD		Scale: 1:25		
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description			Water Strikes	Sample and In Situ Testing		
								Depth (m)	Type	Results
	0.45	18.00		Grass over firm dark brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is subrounded fine to medium flint. (Topsoil)				0.50	LB	
	1.00	17.55		Light orangish brown mottled light grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is subrounded to rounded fine to medium flint. (The Bracklesham Group)				1.00	B	
		17.00		End of Trial Pit at 1.000m						
Dimensions		Soakage Test Information						Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used		
1.70	0.30						Pit remained stable	No		
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 1.00m. Backfilled with arisings on completion.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP46 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 28/10/2022		Co-ords: E449192.00 N116997.00		Level: 25.00m AoD		Scale: 1:25	
1 2 3 4 5	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.34	25.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)			2.40	B	
		24.66		Soft to firm light orangish brown mottled light grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
		22.80		Firm light orangish brown mottled light grey slightly gravelly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)					
22.50		End of Trial Pit at 2.500m							
Dimensions		Soakage Test Information					Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability		Shoring Used
1.80	0.30						Pit remained stable		No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP47 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 28/10/2022		Co-ords: E449177.00 N116925.00		Level: 27.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.36	27.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)					
		26.64		Soft to firm light orangish brown mottled light grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	2.20	24.80		Firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)			2.40	B	
	2.50	24.50		End of Trial Pit at 2.500m					
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability		Shoring Used
1.70	0.30						Pit remained stable		No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP48 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 28/10/2022		Co-ords: E449117.00 N116972.00		Level: 25.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.36	25.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)					
		24.64		Soft to firm light orangish brown mottled light grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	2.10	22.90		Firm light orangish brown mottled light grey slightly gravelly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)			2.30	B	
	2.50	22.50		End of Trial Pit at 2.500m					
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability		Shoring Used
1.60	0.30						Pit remained stable		No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

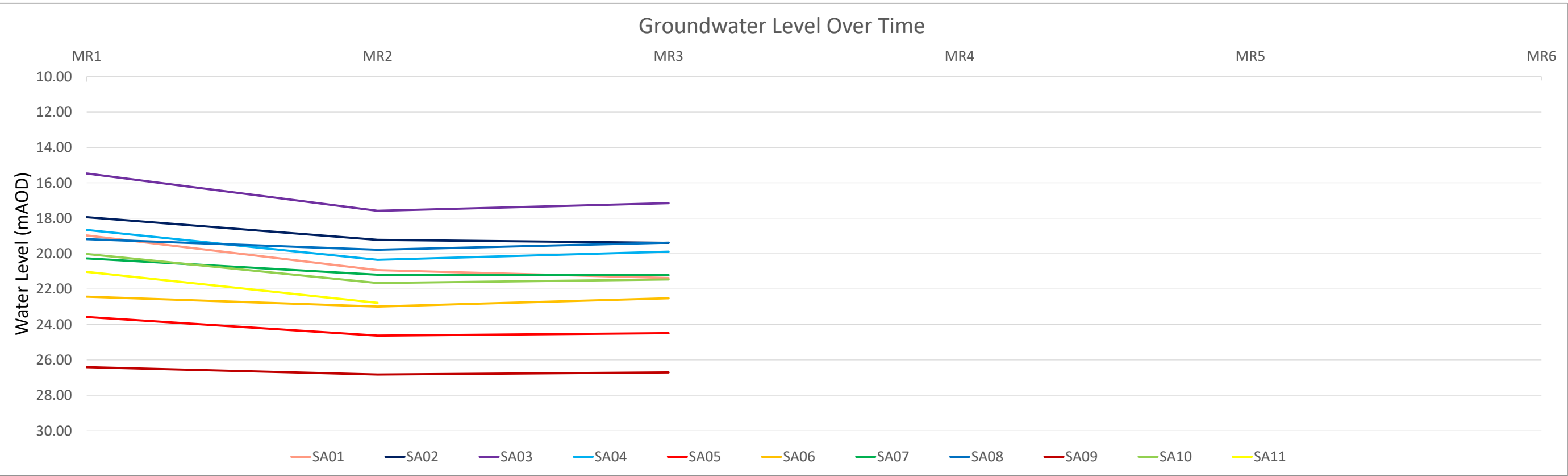
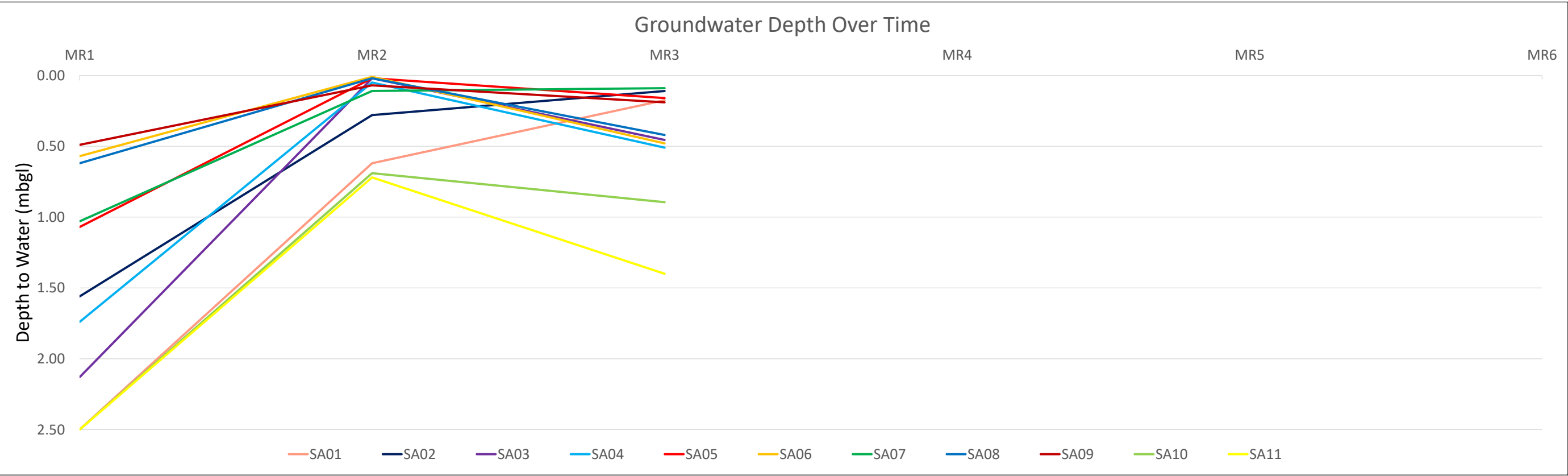
		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP49 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 28/10/2022		Co-ords: E449120.00 N116927.00		Level: 27.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.34	27.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)					
		26.66		Soft to firm light orangish brown mottled light grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	2.10	24.90		Firm light orangish brown mottled light grey sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)			2.20	B	
	2.50	24.50		End of Trial Pit at 2.500m					
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability		Shoring Used
1.80	0.30						Pit remained stable		No
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP50 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 28/10/2022		Co-ords: E449039.00 N116942.00		Level: 27.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description		Water Strikes	Sample and In Situ Testing		
							Depth (m)	Type	Results
	0.34	27.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)					
		26.66		Soft to firm light orangish brown mottled light grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	2.10	24.90		Firm light orangish brown mottled light grey slightly gravelly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)			2.30	B	
	2.50	24.50		End of Trial Pit at 2.500m					
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length	Pit Width	Test Number	Date Test	Depth Start	Depth End	Duration	Pit Stability	Shoring Used	
1.70	0.30						Pit remained stable	No	
Remarks CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

		Ridge and Partners LLP www.ridge.co.uk		Trial Pit Log				Trial Pit No. TP51 Sheet 1 of 1	
Project Name: One Horton Heath				Client: Eastleigh Borough Council		Contractor: Borehole Solutions Limited		Logged By: RA	
Location: SO30 2HU				Equipment: 8 tonne tracked excavator		Depth: 2.50m		Hole Type: TP	
Project ID: 5019962		Date: 28/10/2022		Co-ords: E449044.00 N117005.00		Level: 25.00m AoD		Scale: 1:25	
	Depth (m)	Level (mAOD)	Legend	Stratum Description	Water Strikes	Sample and In Situ Testing			
						Depth (m)	Type	Results	
1 2 3 4 5	0.32	25.00		Grass over firm dark brown sandy silty CLAY. Sand is fine to medium. (Topsoil)		2.40	B		
		24.68		Soft to firm light orangish brown mottled light grey slightly sandy silty CLAY. Sand is fine to medium. (The Bracklesham Group)					
	2.10	22.90		Firm light orangish brown mottled light grey slightly gravelly sandy silty CLAY. Sand is fine to medium. Gravel is subrounded fine to medium flint. (The Bracklesham Group)					
	2.50	22.50	End of Trial Pit at 2.500m						
Dimensions			Soakage Test Information				Trial Pit Support		
Pit Length 1.80		Pit Width 0.30		Test Number	Date Test	Depth Start	Depth End	Duration	
Remarks									
CAT and Genny scanned prior to excavation. Mechanically dug trial pit to 2.50m. Backfilled with arisings on completion.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

APPENDIX 5 – MONITORING SHEETS

Project Name:	One Horton Heath
Project Reference:	5019962



mAOD		03/11/2022			06/01/2023			02/02/2023											
		MR1			MR2			MR3			MR4			MR5			MR6		
		Depth to Water (mbgl)	Water Level (mAOD)	Depth to Base (mbgl)	Depth to Water (mbgl)	Water Level (mAOD)	Depth to Base (mbgl)	Depth to Water (mbgl)	Water Level (mAOD)	Depth to Base (mbgl)	Depth to Water (mbgl)	Water Level (mAOD)	Depth to Base (mbgl)	Depth to Water (mbgl)	Water Level (mAOD)	Depth to Base (mbgl)	Depth to Water (mbgl)	Water Level (mAOD)	Depth to Base (mbgl)
21.55	SA01	Dry	18.97	2.58	0.62	20.93	2.61	0.175	21.375	2.66									
19.5	SA02	1.56	17.94	2.63	0.28	19.22	2.52	0.11	19.39	2.71									
17.6	SA03	2.13	15.47	2.53	0.02	17.58	2.34	0.455	17.145	2.455									
20.4	SA04	1.74	18.66	2.42	0.05	20.35	2.41	0.51	19.89	2.26									
24.65	SA05	1.07	23.58	2.37	0.02	24.63	2.32	0.16	24.49	2.32									
23	SA06	0.57	22.43	2.54	0.01	22.99	2.51	0.48	22.52	2.57									
21.3	SA07	1.03	20.27	2.49	0.11	21.19	2.39	0.09	21.21	2.5									
19.8	SA08	0.62	19.18	2.51	0.02	19.78	2.48	0.42	19.38	2.49									
26.9	SA09	0.49	26.41	2.49	0.07	26.83	2.51	0.19	26.71	2.54									
22.35	SA10	Dry	20.02	2.33	0.69	21.66	2.27	0.895	21.455	2.48									
23.5	SA11	Dry	21.03	2.47	0.72	22.78	2.42	1.4	22.1	2.44									

APPENDIX 6 – LABORATORY CERTIFICATES



Laboratory Report



Contract Number: 62221

Client Ref: **5019962**

Client PO: **21188**

Date Received: **02-11-2022**

Date Completed: **18-11-2022**

Report Date: **18-11-2022**

Client: **Ridge**
Partnership House
Moorside Road
Winchester
SO23 7RX

This report has been checked and approved by:

Brendan Evans
Office Administrator

Contract Title: **Horton Heath**

For the attention of: **Richard Holloway**

Test Description	Qty
Moisture Content BS 1377:1990 - Part 2 : 3.2 - * UKAS	24
4 Point Liquid & Plastic Limit BS 1377:1990 - Part 2 : 4.3 & 5.3 - * UKAS	24
Water Soluble Sulphate 2:1 extract Sub-contracted Test	24
pH value of soil Sub-contracted Test	24
Disposal of samples for job	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

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Approved Signatories:

Brendan Evans (Office Administrator) - Darren Bourne (Quality Senior Technician) - Paul Evans (Director)

Richard John (Quality/Technical Manager) - Shaun Jones (Laboratory manager) - Shaun Thomas (Site Manager)

Wayne Honey (Human Resources/ Health and Safety Coordinator)

GEO Site & Testing Services Ltd

Units 3-4, Heol Aur, Dafen, Llanelli, Carmarthenshire, Wales SA14 8QN

Tel: 01554 784040 Fax: 01554 784041 info@gstl.co.uk gstl.co.uk



**NATURAL MOISTURE, LIQUID LIMIT, PLASTIC LIMIT AND
PLASTICITY INDEX
(BS 1377:1990 - Part 2 : 4.3 & 5.3)**

Contract Number	62221	
Project Name	Horton Heath	
Date Tested	15/11/2022	
	DESCRIPTIONS	

Sample/Hole Reference	Sample Number	Sample Type	Depth (m)			Descriptions
BH01	2	D	1.20	-	1.65	Brown silty CLAY
BH01	6	D	3.00	-	3.45	Brown silty CLAY
BH01	10	D	6.50	-	6.95	Brown silty CLAY
BH01	12	D	8.00	-	8.45	Brown silty CLAY
BH01	14	D	9.50	-	9.95	Brown silty CLAY
BH01	16	D	11.00	-	11.45	Brown silty CLAY
BH02	1	D	0.50	-	0.60	Brown silty CLAY
BH02	4	D	2.00	-	2.45	Brown silty CLAY
BH02	9	D	6.00	-	6.10	Brown silty CLAY
BH02	13	D	9.00	-	9.10	Brown silty CLAY
BH02	18	D	12.50	-	12.95	Brown silty CLAY
BH02	22	D	15.50	-	15.95	Brown clayey SILT
BH03	2	D	1.20	-	1.65	Brown silty CLAY
BH03	5	D	3.00	-	3.45	Brown silty CLAY
BH03	9	D	5.00	-	5.45	Brown silty CLAY
BH03	13	D	8.00	-	8.45	Brown silty CLAY
BH03	17	D	11.00	-	11.45	Brown silty CLAY
BH03	23	D	15.50	-	15.95	Brown silty CLAY
BH04	2	D	0.50	-	1.65	Brown silty CLAY
BH04	7	D	4.00	-	4.45	Brown slightly clayey SAND
BH04	12	D	8.00	-	8.45	Brown silty CLAY
BH04	17	D	12.00	-	12.10	Brown silty CLAY
BH04	20	D	14.00	-	14.45	Brown silty CLAY
BH04	24	D	17.00	-	17.45	Brown silty CLAY

Operator

Clayton Jenkins

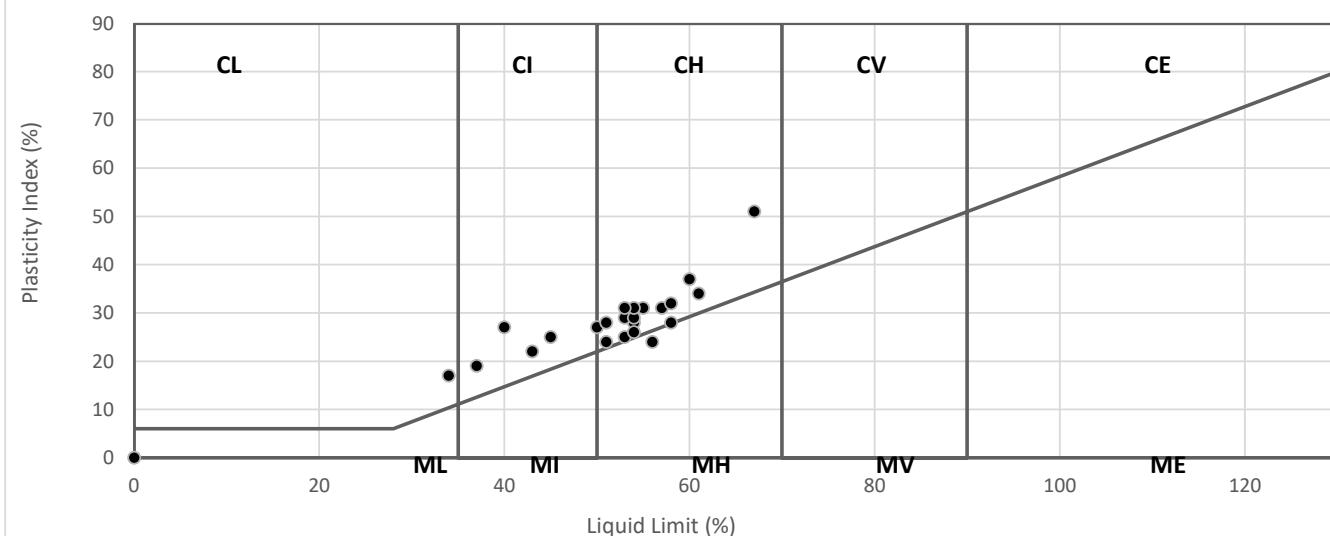
NATURAL MOISTURE, LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX (BS 1377:1990 - Part 2 : 4.3 & 5.3)

Contract Number	62221	
Project Name	Horton Heath	
Date Tested	15/11/2022	

Sample/Hole Reference	Sample Number	Sample Type	Depth (m)			Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity index %	Passing 0.425mm %	Remarks
BH01	2	D	1.20	-	1.65	37	58	30	28	100	CH High Plasticity
BH01	6	D	3.00	-	3.45	40	57	26	31	100	CH High Plasticity
BH01	10	D	6.50	-	6.95	32	58	26	32	100	CH High Plasticity
BH01	12	D	8.00	-	8.45	37	51	27	24	100	CH High Plasticity
BH01	14	D	9.50	-	9.95	34	54	26	28	100	CH High Plasticity
BH01	16	D	11.00	-	11.45	32	53	24	29	100	CH High Plasticity
BH02	1	D	0.50	-	0.60	31	53	28	25	100	CH High Plasticity
BH02	4	D	2.00	-	2.45	41	54	25	29	100	CH High Plasticity
BH02	9	D	6.00	-	6.10	31	55	24	31	100	CH High Plasticity
BH02	13	D	9.00	-	9.10	30	60	23	37	100	CH High Plasticity
BH02	18	D	12.50	-	12.95	22	34	17	17	100	CL Low Plasticity
BH02	22	D	15.50	-	15.95	46	56	32	24	100	MH High Plasticity
BH03	2	D	1.20	-	1.65	16	37	18	19	100	CI Intermediate Plasticity
BH03	5	D	3.00	-	3.45	27	54	23	31	100	CH High Plasticity
BH03	9	D	5.00	-	5.45	24	43	21	22	100	CI Intermediate Plasticity
BH03	13	D	8.00	-	8.45	30	50	23	27	100	CI/H Inter/High Plasticity
BH03	17	D	11.00	-	11.45	25	45	20	25	100	CI Intermediate Plasticity
BH03	23	D	15.50	-	15.95	36	61	27	34	100	CH High Plasticity
BH04	2	D	0.50	-	1.65	24	40	13	27	100	CI Intermediate Plasticity
BH04	7	D	4.00	-	4.45	16		NP		100	
BH04	12	D	8.00	-	8.45	34	67	16	51	100	CH High Plasticity
BH04	17	D	12.00	-	12.10	28	53	22	31	100	CH High Plasticity
BH04	20	D	14.00	-	14.45	33	54	28	26	100	CH High Plasticity
BH04	24	D	17.00	-	17.45	30	51	23	28	100	CH High Plasticity

Symbols: NP : Non Plastic # : Liquid Limit and Plastic Limit Wet Sieved

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION BS 5930:1999+A2:2010



Operator

Clayton Jenkins



ANALYTICAL TEST REPORT

Contract no: 115595

Contract name: One Horton Heath

Client reference: 5019962

Clients name: Geo Site and Testing Services

Clients address: Unit 3 and 4 Heol Aur
Dafen Industrial Estate, Dafen
Llanelli, Carmarthenshire
SA14 8QN

Samples received: 10 November 2022

Analysis started: 10 November 2022

Analysis completed: 17 November 2022

Report issued: 17 November 2022

Key

U	UKAS accredited test
M	MCERTS & UKAS accredited test
\$	Test carried out by an approved subcontractor
I/S	Insufficient sample to carry out test
N/S	Sample not suitable for testing

Approved by:

Abbie Neasham-Bourn
Senior Reporting Administrator

Chemtech Environmental Limited

SOILS

Lab number			115595-1	115595-2	115595-3	115595-4	115595-5	115595-6
Sample id			BH01	BH01	BH01	BH01	BH01	BH01
Depth (m)			2.00-2.45	4.00-4.45	7.50-7.60	9.00-9.10	10.50-10.60	13.50-13.60
Sample Type			D4	D7	D11	D13	D15	D19
Date sampled			-	-	-	-	-	-
Test	Method	Units						
pH	CE004 ^U	units	7.7	6.8	6.8	6.7	7.4	7.2
Sulphate (2:1 water soluble)	CE061 ^U	mg/l SO ₄	269	117	100	107	839	63

Chemtech Environmental Limited

SOILS

Lab number			115595-7	115595-8	115595-9	115595-10	115595-11	115595-12
Sample id			BH02	BH02	BH02	BH02	BH02	BH02
Depth (m)			1.20-1.65	3.00-3.45	6.50-6.95	11.00-11.45	14.00-14.45	16.50-16.60
Sample Type			D2	D5	D10	D16	D20	D23
Date sampled			-	-	-	-	-	-
Test	Method	Units						
pH	CE004 ^U	units	6.5	6.8	6.5	6.4	6.3	6.3
Sulphate (2:1 water soluble)	CE061 ^U	mg/l SO ₄	60	98	108	81	169	122

Chemtech Environmental Limited

SOILS

Lab number			115595-13	115595-14	115595-15	115595-16	115595-17	115595-18
Sample id			BH03	BH03	BH03	BH03	BH03	BH03
Depth (m)			2.00-2.45	4.00-4.45	6.50-6.95	9.50-9.95	13.50-13.60	17.00-17.45
Sample Type			D4	D7	D11	D15	D20	D25
Date sampled			-	-	-	-	-	-
Test	Method	Units						
pH	CE004 ^U	units	7.0	7.0	6.2	5.8	6.1	6.2
Sulphate (2:1 water soluble)	CE061 ^U	mg/l SO ₄	19	20	40	124	96	41

Chemtech Environmental Limited

SOILS

Lab number			115595-19	115595-20	115595-21	115595-22	115595-23	115595-24
Sample id			BH04	BH04	BH04	BH04	BH04	BH04
Depth (m)			2.00-2.45	6.00-6.10	9.50-9.95	12.50-12.96	15.00-15.10	18.00-18.10
Sample Type			D4	D9	D14	D18	D21	D25
Date sampled			-	-	-	-	-	-
Test	Method	Units						
pH	CE004 ^U	units	7.4	6.1	6.2	6.1	6.2	6.3
Sulphate (2:1 water soluble)	CE061 ^U	mg/l SO ₄	23	82	25	70	46	80

Chemtech Environmental Limited

METHOD DETAILS

METHOD	SOILS	METHOD SUMMARY	SAMPLE	STATUS	LOD	UNITS
CE004	pH	Based on BS 1377, pH Meter	As received	U	-	units
CE061	Sulphate (2:1 water soluble)	Aqueous extraction, ICP-OES	Dry	U	10	mg/l SO ₄

Chemtech Environmental Limited

DEVIATING SAMPLE INFORMATION

Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.

For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.

Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

Key

N	No (not deviating sample)
Y	Yes (deviating sample)
NSD	Sampling date not provided
NST	Sampling time not provided (waters only)
EHT	Sample exceeded holding time(s)
IC	Sample not received in appropriate containers
HP	Headspace present in sample container
NCF	Sample not chemically fixed (where appropriate)
OR	Other (specify)

Lab ref	Sample id	Depth (m)	Deviating	Tests (Reason for deviation)
115595-1	BH01	2.00-2.45	Y	All (NSD)
115595-2	BH01	4.00-4.45	Y	All (NSD)
115595-3	BH01	7.50-7.60	Y	All (NSD)
115595-4	BH01	9.00-9.10	Y	All (NSD)
115595-5	BH01	10.50-10.60	Y	All (NSD)
115595-6	BH01	13.50-13.60	Y	All (NSD)
115595-7	BH02	1.20-1.65	Y	All (NSD)
115595-8	BH02	3.00-3.45	Y	All (NSD)
115595-9	BH02	6.50-6.95	Y	All (NSD)
115595-10	BH02	11.00-11.45	Y	All (NSD)
115595-11	BH02	14.00-14.45	Y	All (NSD)
115595-12	BH02	16.50-16.60	Y	All (NSD)
115595-13	BH03	2.00-2.45	Y	All (NSD)
115595-14	BH03	4.00-4.45	Y	All (NSD)
115595-15	BH03	6.50-6.95	Y	All (NSD)
115595-16	BH03	9.50-9.95	Y	All (NSD)
115595-17	BH03	13.50-13.60	Y	All (NSD)
115595-18	BH03	17.00-17.45	Y	All (NSD)
115595-19	BH04	2.00-2.45	Y	All (NSD)
115595-20	BH04	6.00-6.10	Y	All (NSD)
115595-21	BH04	9.50-9.95	Y	All (NSD)
115595-22	BH04	12.50-12.96	Y	All (NSD)
115595-23	BH04	15.00-15.10	Y	All (NSD)
115595-24	BH04	18.00-18.10	Y	All (NSD)

Chemtech Environmental Limited

ADDITIONAL INFORMATION

Notes

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

Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling.

All testing carried out at Unit 6 Parkhead, Stanley, DH9 7YB, except for subcontracted testing.

Methods, procedures and performance data are available on request.

Results reported herein relate only to the material supplied to the laboratory.

This report shall not be reproduced except in full, without prior written approval.

Samples will be disposed of 4 weeks from initial receipt unless otherwise instructed.

For soils and solids, all results are reported on a dry basis. Samples dried at no more than 30°C in a drying cabinet.

Analytical results are inclusive of stones, where applicable.



Laboratory Report



Contract Number: 62358

Client Ref: **5019962**
Client PO: **5019962-21188**

Date Received: **02-11-2022**
Date Completed: **05-12-2022**
Report Date: **05-12-2022**

Client: **Ridge**
Partnership House
Moorside Road
Winchester
SO23 7RX

This report has been checked and approved by:

Brendan Evans
Office Administrator

Contract Title: **Horton Heath**
For the attention of: **Rhys Andrews**

Test Description	Qty
Moisture Content BS 1377:1990 - Part 2 : 3.2 - * UKAS	28
4 Point Liquid & Plastic Limit BS 1377:1990 - Part 2 : 4.3 & 5.3 - * UKAS	28
PSD Wet Sieve method BS 1377:1990 - Part 2 : 9.2 - * UKAS	34
BRE Reduced Suite includes pH, water & acid soluble sulphate and total sulphur Sub-contracted Test	28
Dry Den/MC (2.5kg Rammer Method 1 litre mould/CBR Mould) BS 1377:1990 - Part 4 : 3.4 - * UKAS	21
CBR: Remoulded Specimen and tested at top only BS 1377:1990 - Part 4 : 7 - * UKAS	65
Soaking or Curing CBR specimens BS 1377:1990 - Part 4 : 7.3 - @ Non Accredited Test	176
MCV/Moisture Content Relationship BS 1377:1990 - Part 4 : 5.5 - * UKAS	14

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

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Approved Signatories:

Brendan Evans (Office Administrator) - Darren Bourne (Quality Senior Technician) - Paul Evans (Director)
Richard John (Quality/Technical Manager) - Shaun Jones (Laboratory manager) - Shaun Thomas (Site Manager)
Wayne Honey (Human Resources/ Health and Safety Coordinator)



Laboratory Report



Contract Number: 62358

Test Description	Qty
Mixing Lime and or Cement to sample	16
Disposal of samples for job	1

Notes: Observations and Interpretations are outside the UKAS Accreditation

* - denotes test included in laboratory scope of accreditation

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Wayne Honey (Human Resources/ Health and Safety Coordinator)

GEO Site & Testing Services Ltd

Units 3-4, Heol Aur, Dafen, Llanelli, Carmarthenshire, Wales SA14 8QN

Tel: 01554 784040 Fax: 01554 784041 info@gstl.co.uk gstl.co.uk

Summary of Soil Descriptions

Contract Number	62358	
Project Name	Horton Heath	
Client Reference	5019962	

Sample/Hole Reference	Sample Number	Sample Type	Depth (m)			Descriptions
SA01	2	B	2.00	-		Brown fine to coarse sandy SILT/CLAY
SA02	2	B	1.00	-		Brown slightly fine gravelly fine to coarse sandy SILT/CLAY
SA03	2	B	1.50	-		Brown slightly fine to medium gravelly fine to coarse sandy SILT/CLAY
SA04	2	B	0.30	-		Brown fine to coarse gravelly fine to coarse sandy SILT/CLAY
SA05	2	B	1.50	-		Brown slightly fine gravelly fine to coarse sandy SILT/CLAY
SA06	2	B	1.50	-		Brown fine to coarse sandy SILT/CLAY
SA07	2	B	1.70	-		Brown fine to coarse sandy SILT/CLAY
SA08	2	B	1.20	-		Brown fine to coarse sandy SILT/CLAY
SA09	2	B	1.30	-		Brown slightly fine gravelly fine to coarse sandy SILT/CLAY
SA10	2	B	1.20	-		Brown slightly fine to medium gravelly fine to coarse sandy SILT/CLAY
SA11	2	B	1.00	-		Brown fine to coarse sandy SILT/CLAY
TP01	1	B	1.00	-		Brown silty CLAY
TP02	1	B	1.00	-		Brown silty CLAY
TP03	2	B	0.50	-		Brown fine to coarse sandy SILT/CLAY
TP03	1	B	1.00	-		Brown silty CLAY
TP04	1	B	1.00	-		Brown fine to medium gravelly silty CLAY
TP05	1	B	1.00	-		Brown silty CLAY
TP06	1	B	1.00	-		Brown silty CLAY
TP07	1	B	1.00	-		Brown silty CLAY
TP08	1	B	1.00	-		Brown silty CLAY
TP09	2	B	0.10	-		Brown fine to coarse gravelly fine to coarse sandy SILT/CLAY
TP09	1	B	1.00	-		Brown silty CLAY
TP10	1	B	1.00	-		Brown silty CLAY
TP11	1	B	1.00	-		Brown sandy silty CLAY
TP12	1	B	1.00	-		Brown sandy silty CLAY
TP13	2	B	0.60	-		Brown fine to medium gravelly fine to coarse sandy SILT/CLAY
TP13	1	B	1.00	-		Brown silty CLAY
TP14	1	B	1.00	-		Brown sandy silty CLAY
TP15	1	B	1.00	-		Brown fine to medium gravelly silty CLAY
TP16	1	B	1.00	-		Brown silty CLAY
TP17	2	B	0.50	-		Brown slightly fine to medium gravelly fine to coarse sandy SILT/CLAY
TP17	1	B	1.00	-		Brown silty CLAY
TP18	1	B	1.00	-		Brown fine to coarse gravelly silty CLAY
TP19	1	B	1.00	-		Brown silty CLAY
TP20	2	B	0.50	-		Brown fine to coarse gravelly fine to coarse sandy SILT/CLAY
TP20	1	B	1.00	-		Brown silty CLAY
TP22	1	B	1.00	-		Brown silty CLAY
TP23	1	B	1.00	-		Brown sandy silty CLAY
TP24	2	B	0.50	-		Brown fine to coarse gravelly fine to coarse sandy SILT/CLAY
TP24	1	B	1.00	-		Brown fine to medium gravelly silty CLAY
TP25	1	B	1.00	-		Brown silty CLAY
TP26	2	B	0.50	-		Brown fine to coarse gravelly fine to coarse sandy SILT/CLAY
TP26	1	B	1.00	-		Brown fine to coarse gravelly silty CLAY
TP27	1	B	1.00	-		Brown fine to medium gravelly sandy silty CLAY
TP28	1	B	1.00	-		Brown silty CLAY
TP29	1	B	1.00	-		Brown silty CLAY
TP30	1	B	1.00	-		Brown silty CLAY
TP31	2	B	0.50	-		Brown slightly fine to medium gravelly fine to coarse sandy SILT/CLAY
TP31	1	B	1.00	-		Brown silty CLAY

[illegible]

NATURAL MOISTURE, LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

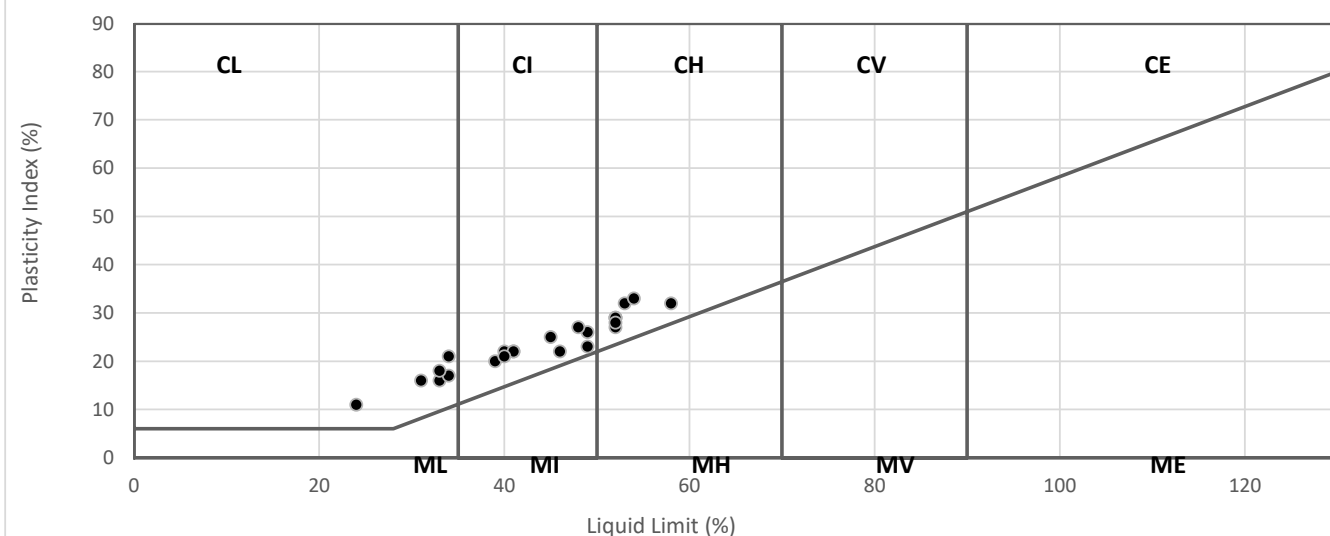
(BS 1377:1990 - Part 2 : 4.3 & 5.3)

Contract Number	62358	
Project Name	Horton Heath	
Date Tested	29/11/2022	

Sample/Hole Reference	Sample Number	Sample Type	Depth (m)			Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity index %	Passing 0.425mm %	Remarks
SA01	2	B	2.00	-		25	52	23	29	99	CH High Plasticity
SA02	2	B	1.00	-		29	53	21	32	95	CH High Plasticity
SA03	2	B	1.50	-		28	49	26	23	94	CI Intermediate Plasticity
SA04	2	B	0.30	-		15	33	17	16	71	CL Low Plasticity
SA05	2	B	1.50	-		26	52	23	29	91	CH High Plasticity
SA06	2	B	1.50	-		29	58	26	32	98	CH High Plasticity
SA07	2	B	1.70	-		25	52	23	29	96	CH High Plasticity
SA08	2	B	1.20	-		30	52	25	27	97	CH High Plasticity
SA09	2	B	1.30	-		26	52	24	28	96	CH High Plasticity
SA10	2	B	1.20	-		19	34	17	17	97	CL Low Plasticity
SA11	2	B	1.00	-		21	41	19	22	99	CI Intermediate Plasticity
TP03	2	B	0.50	-		30	46	24	22	99	CI Intermediate Plasticity
TP09	2	B	0.10	-		17	33	15	18	64	CL Low Plasticity
TP13	2	B	0.60	-		22	39	19	20	92	CI Intermediate Plasticity
TP17	2	B	0.50	-		22	45	20	25	97	CI Intermediate Plasticity
TP20	2	B	0.50	-		15	34	13	21	80	CL Low Plasticity
TP24	2	B	0.50	-		26	49	23	26	81	CI Intermediate Plasticity
TP26	2	B	0.50	-		20	40	18	22	86	CI Intermediate Plasticity
TP31	2	B	0.50	-		23	48	21	27	97	CI Intermediate Plasticity
TP32	2	B	0.40	-		21	41	19	22	83	CI Intermediate Plasticity
TP33	2	B	0.70	-		23	54	21	33	96	CH High Plasticity
TP34	2	B	0.80	-		11	24	13	11	99	CL Low Plasticity
TP39	2	B	0.70	-		23	40	19	21	92	CI Intermediate Plasticity
TP40	2	B	0.60	-		14	31	15	16	95	CL Low Plasticity

Symbols: NP : Non Plastic # : Liquid Limit and Plastic Limit Wet Sieved

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION BS 5930:2015+A1:2020



Operator

Darcy Etheridge

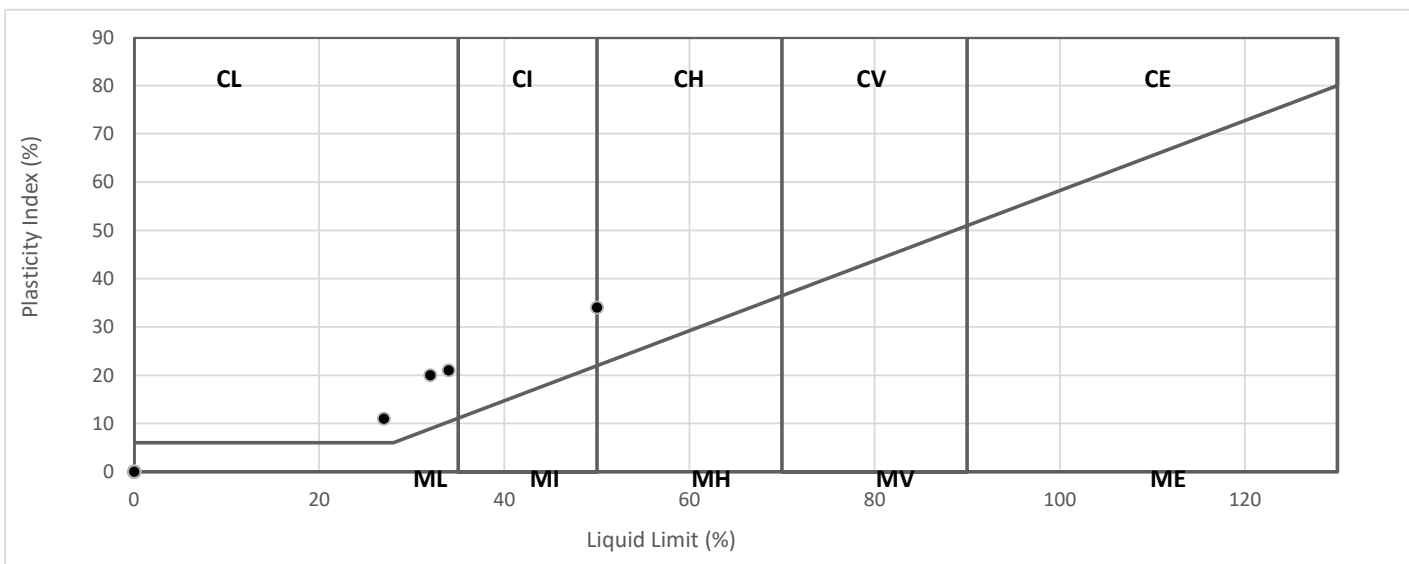
**NATURAL MOISTURE, LIQUID LIMIT, PLASTIC LIMIT AND
PLASTICITY INDEX
(BS 1377:1990 - Part 2 : 4.3 & 5.3)**

Contract Number	62358	
Project Name	Horton Heath	
Date Tested	29/11/2022	

[illegible]

Symbols: NP : Non Plastic # : Liquid Limit and Plastic Limit Wet Sieved

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION



Operator
Darcy Etheridge





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

Contract Number 62358

Borehole/Pit No. SA01

Project Name Horton Heath

Sample No. 2

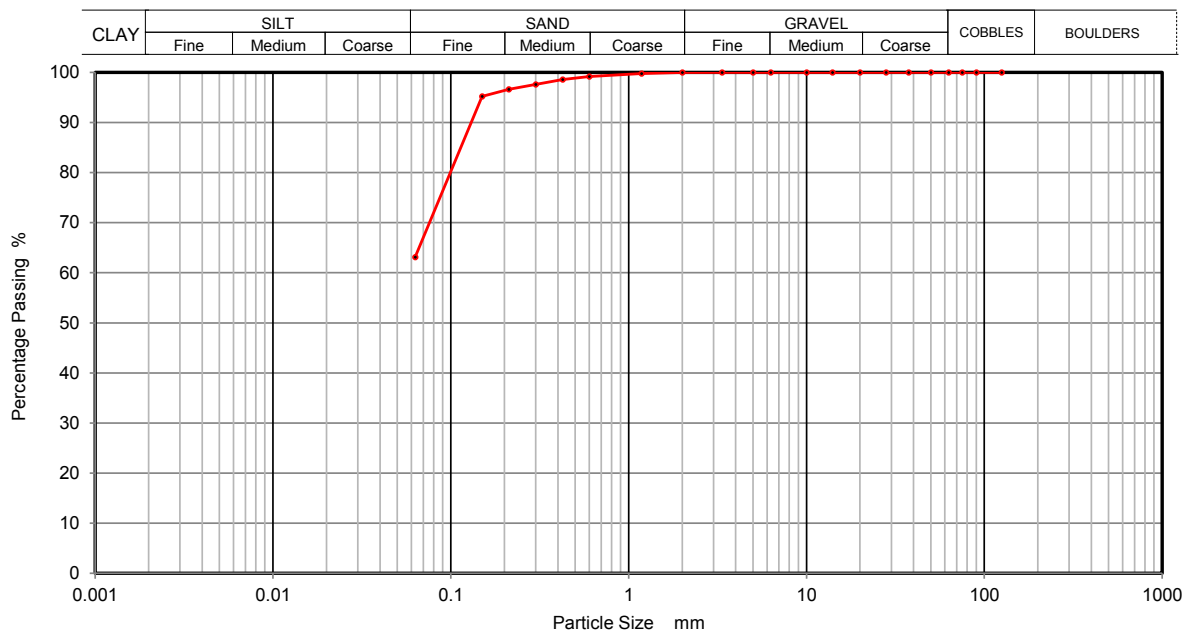
Soil Description *See sample description sheet

Depth Top 2.00

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	99		
0.425	99		
0.3	98		
0.212	97		
0.15	95		
0.063	63		

Sample Proportions	% dry mass
Cobbles	0
Gravel	0
Sand	37
Silt and Clay	63

Remarks
Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. SA02

Project Name Horton Heath

Sample No. 2

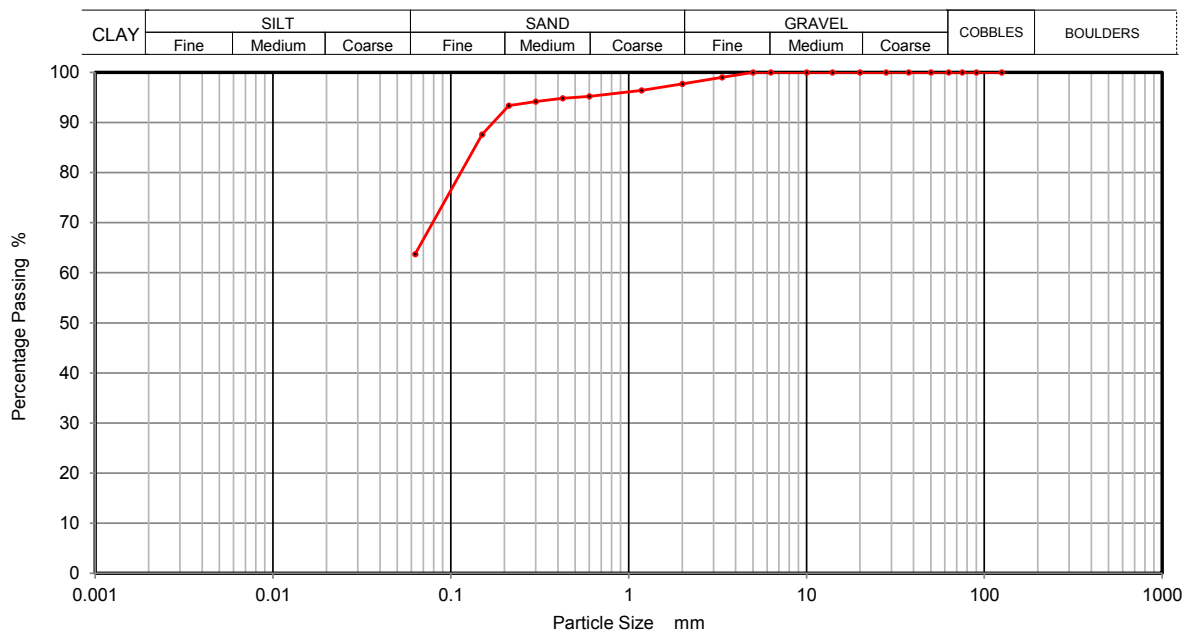
Soil Description *See sample description sheet

Depth Top 1.00

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	99		
2	98		
1.18	96		
0.6	95		
0.425	95		
0.3	94		
0.212	93		
0.15	88		
0.063	64		

Sample Proportions	% dry mass
Cobbles	0
Gravel	2
Sand	34
Silt and Clay	64

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. SA03

Project Name Horton Heath

Sample No. 2

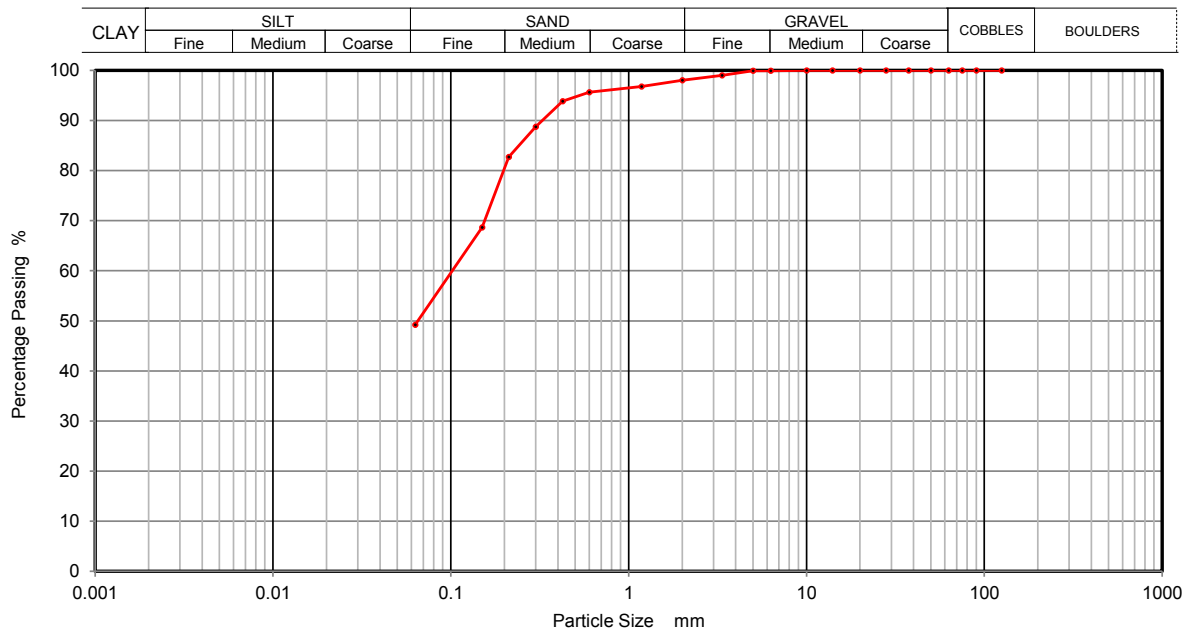
Soil Description *See sample description sheet

Depth Top 1.50

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	99		
2	98		
1.18	97		
0.6	96		
0.425	94		
0.3	89		
0.212	83		
0.15	69		
0.063	49		

Sample Proportions	% dry mass
Cobbles	0
Gravel	2
Sand	49
Silt and Clay	49

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. SA04

Project Name Horton Heath

Sample No. 2

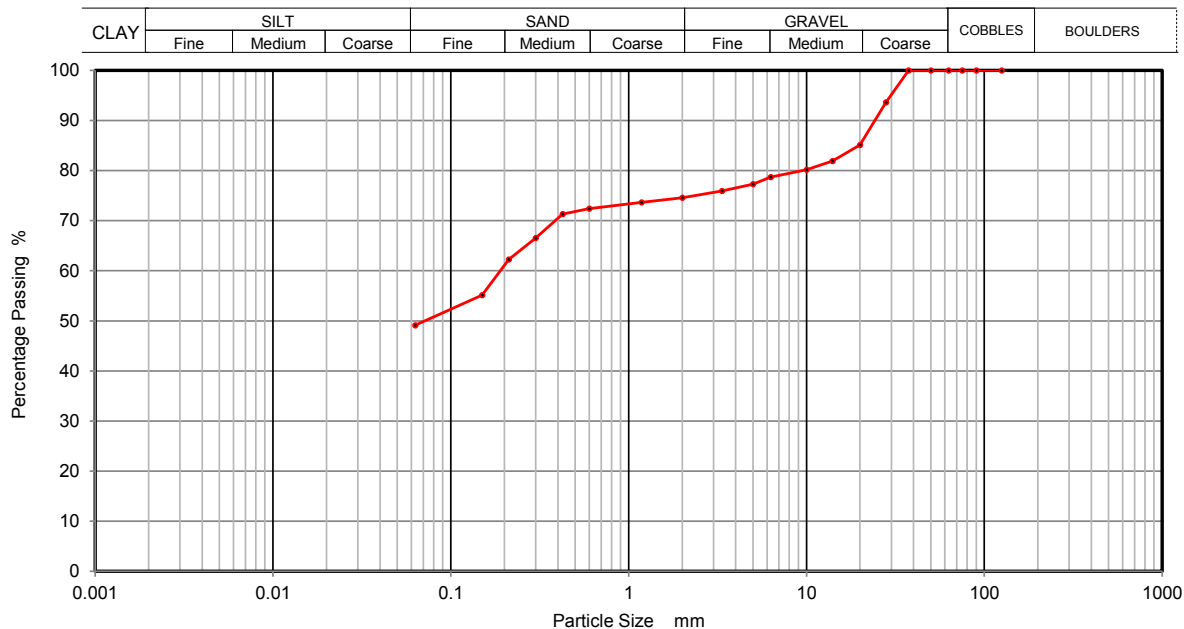
Soil Description *See sample description sheet

Depth Top 0.30

Depth Base

Date Tested 29/11/2022

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	100		
28	94		
20	85		
14	82		
10	80		
6.3	79		
5	77		
3.35	76		
2	75		
1.18	74		
0.6	72		
0.425	71		
0.3	67		
0.212	62		
0.15	55		
0.063	49		

Sample Proportions	% dry mass
Cobbles	0
Gravel	25
Sand	26
Silt and Clay	49

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. SA05

Project Name Horton Heath

Sample No. 2

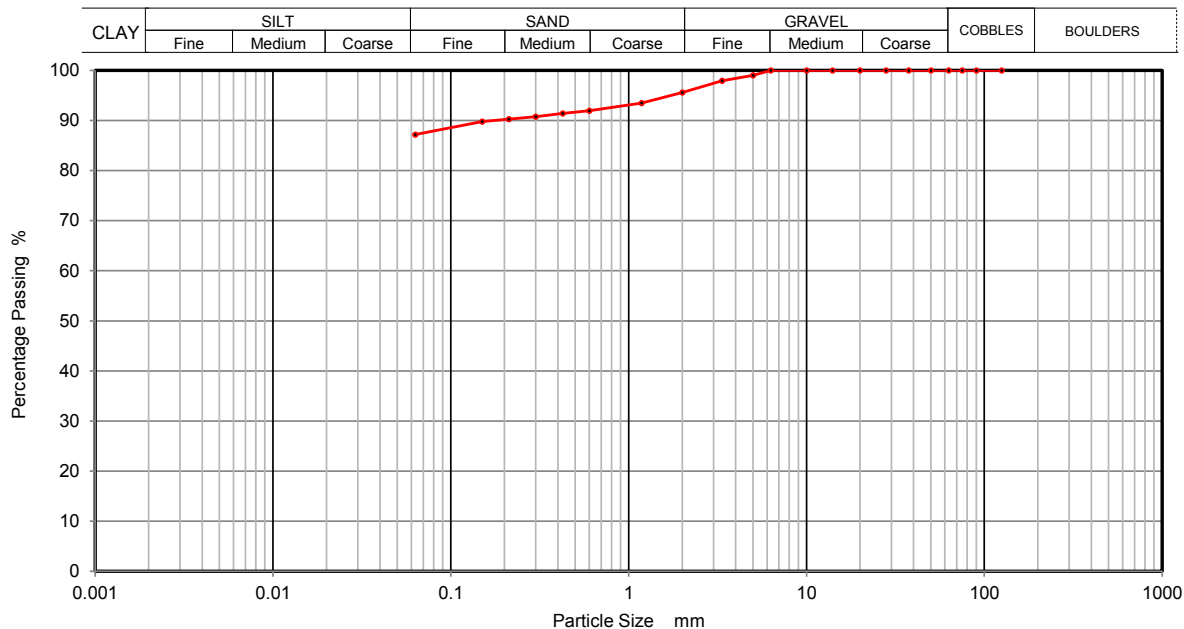
Soil Description *See sample description sheet

Depth Top 1.50

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	99		
3.35	98		
2	96		
1.18	93		
0.6	92		
0.425	91		
0.3	91		
0.212	90		
0.15	90		
0.063	87		

Sample Proportions	% dry mass
Cobbles	0
Gravel	4
Sand	9
Silt and Clay	87

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. SA06

Project Name Horton Heath

Sample No. 2

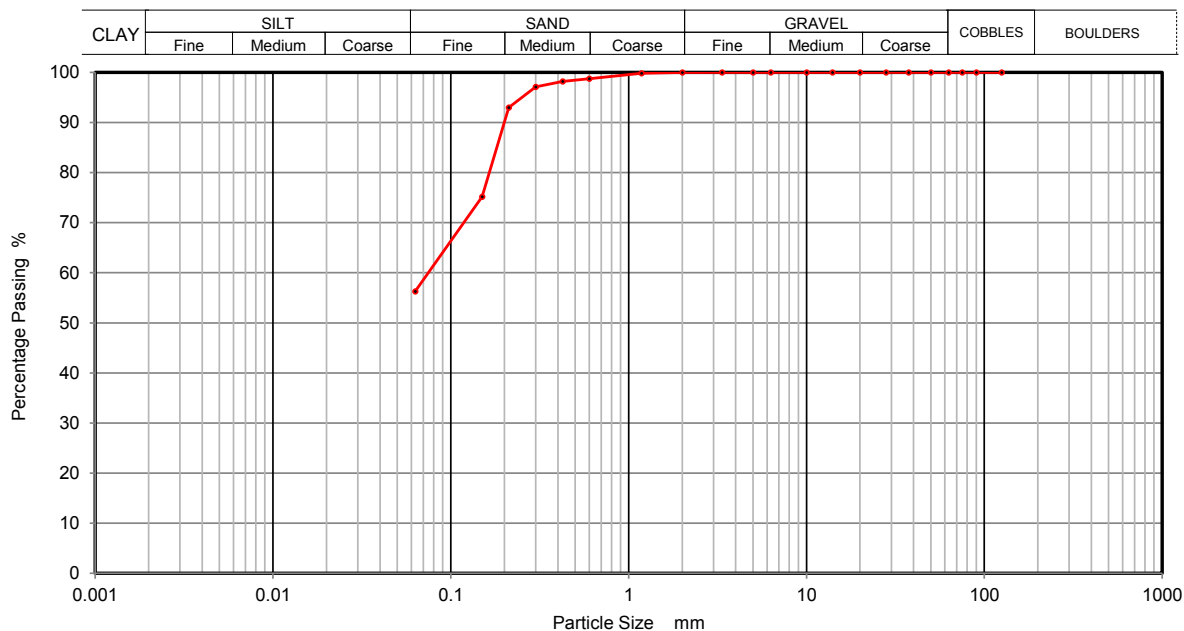
Soil Description *See sample description sheet

Depth Top 1.50

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	99		
0.425	98		
0.3	97		
0.212	93		
0.15	75		
0.063	56		

Sample Proportions	% dry mass
Cobbles	0
Gravel	0
Sand	44
Silt and Clay	56

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. SA07

Project Name Horton Heath

Sample No. 2

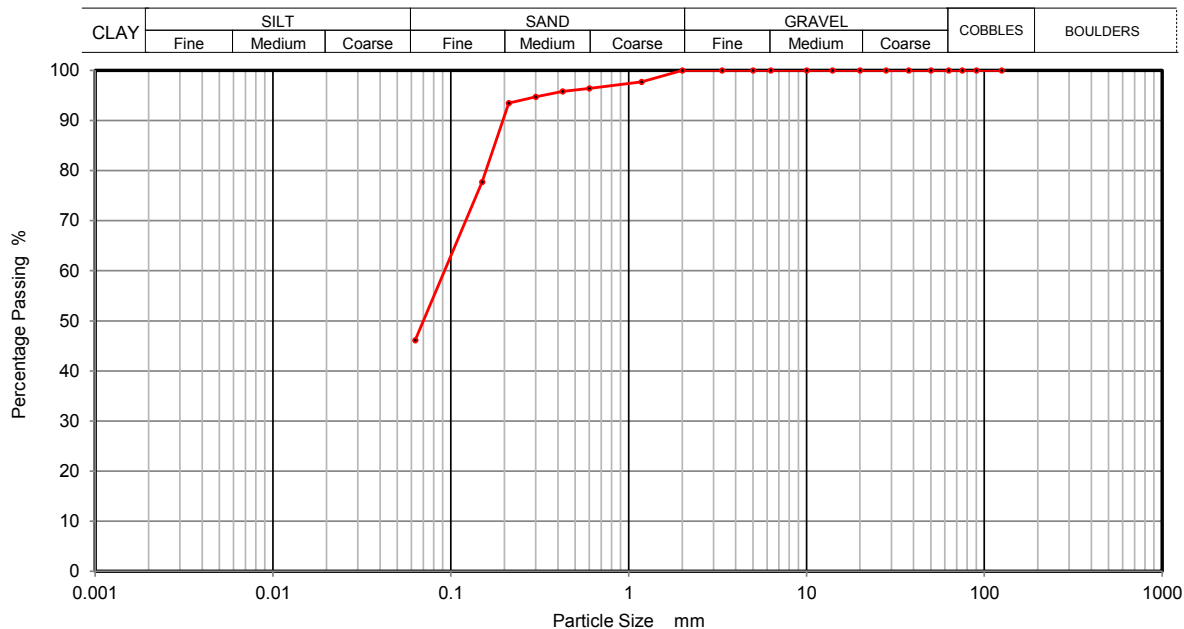
Soil Description *See sample description sheet

Depth Top 1.70

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	98		
0.6	96		
0.425	96		
0.3	95		
0.212	93		
0.15	78		
0.063	46		

Sample Proportions	% dry mass
Cobbles	0
Gravel	0
Sand	54
Silt and Clay	46

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. SA08

Project Name Horton Heath

Sample No. 2

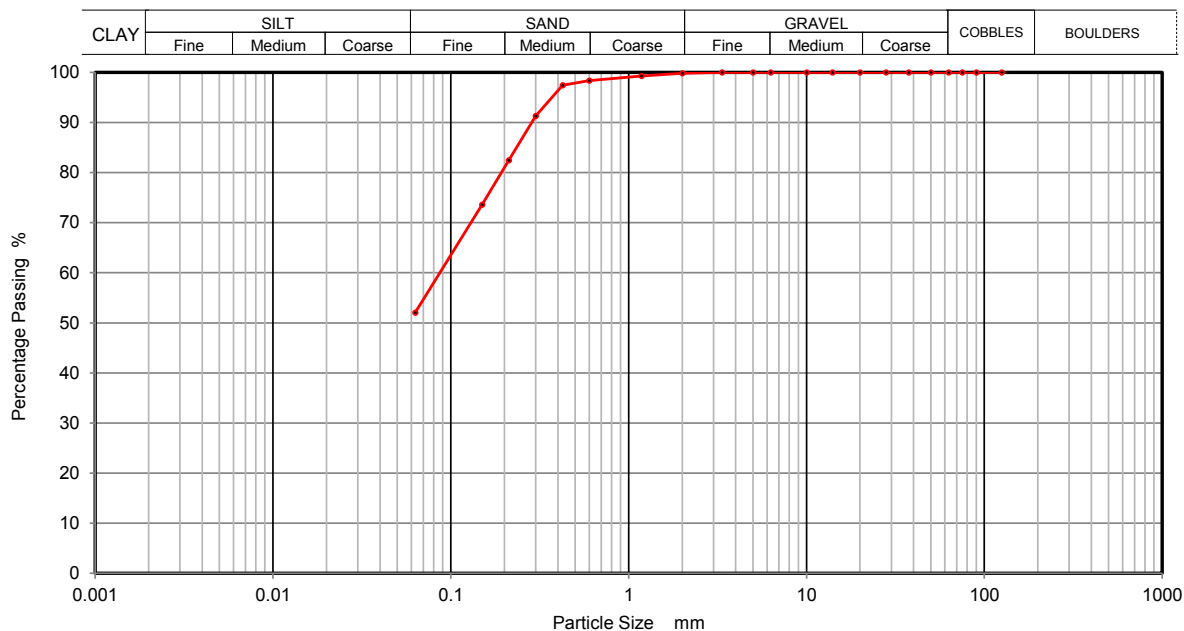
Soil Description *See sample description sheet

Depth Top 1.20

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	99		
0.6	98		
0.425	97		
0.3	91		
0.212	82		
0.15	74		
0.063	52		

Sample Proportions	% dry mass
Cobbles	0
Gravel	0
Sand	48
Silt and Clay	52

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. SA09

Project Name Horton Heath

Sample No. 2

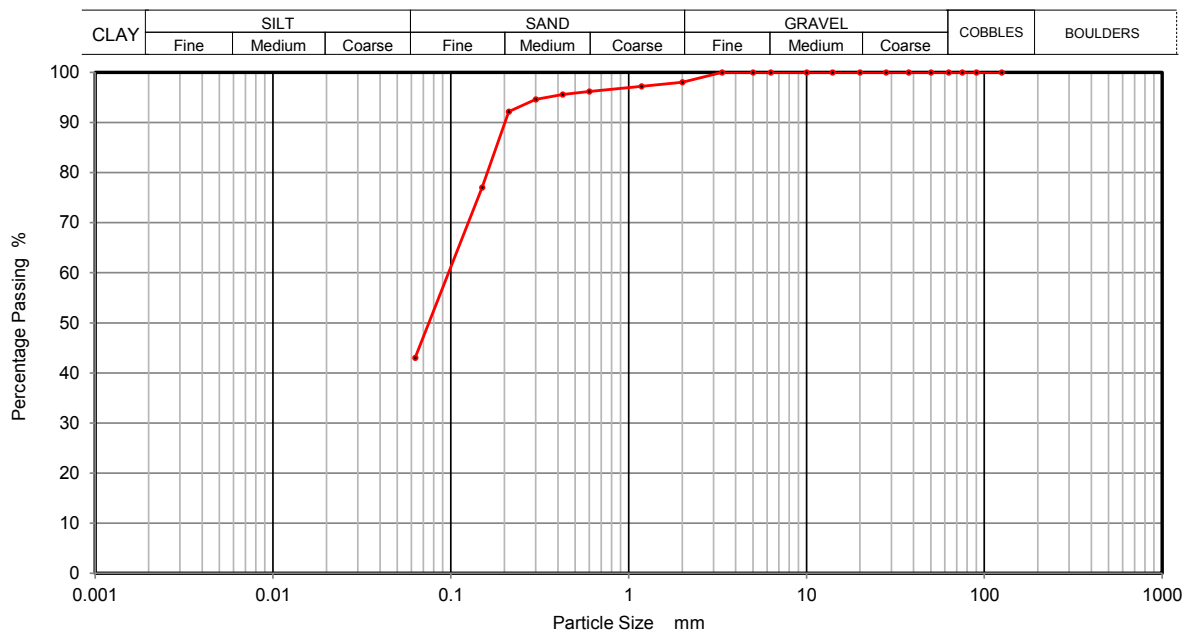
Soil Description *See sample description sheet

Depth Top 1.30

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	98		
1.18	97		
0.6	96		
0.425	96		
0.3	95		
0.212	92		
0.15	77		
0.063	43		

Sample Proportions	% dry mass
Cobbles	0
Gravel	2
Sand	55
Silt and Clay	43

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. SA10

Project Name Horton Heath

Sample No. 2

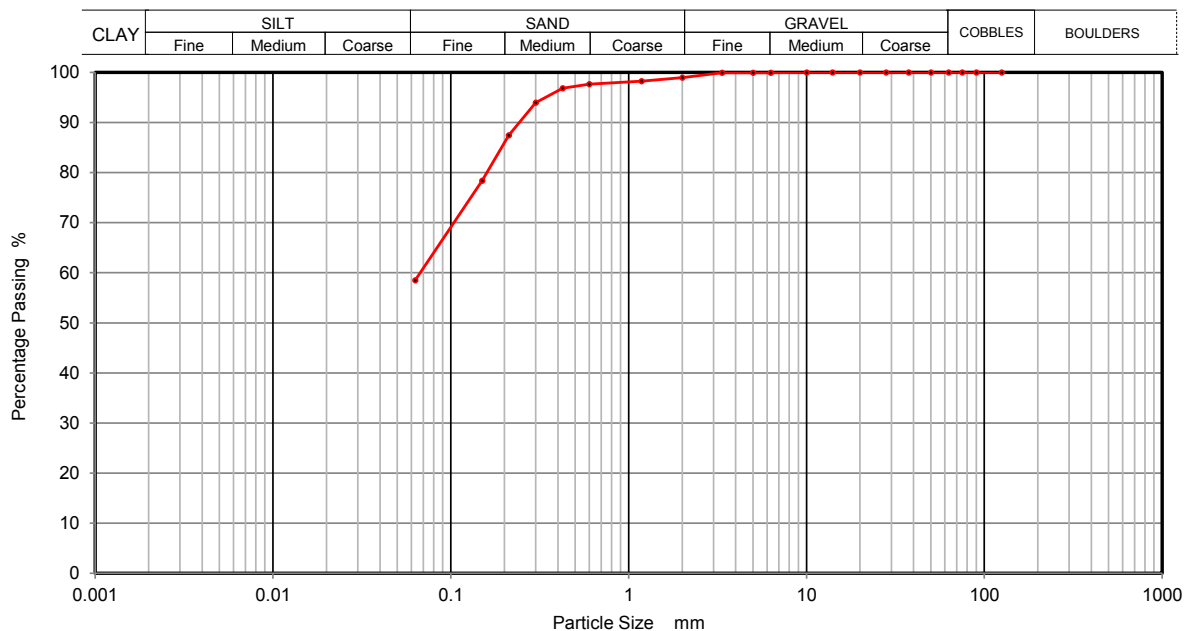
Soil Description *See sample description sheet

Depth Top 1.20

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	99		
1.18	98		
0.6	98		
0.425	97		
0.3	94		
0.212	87		
0.15	78		
0.063	58		

Sample Proportions	% dry mass
Cobbles	0
Gravel	1
Sand	41
Silt and Clay	58

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator
David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. SA11

Project Name Horton Heath

Sample No. 2

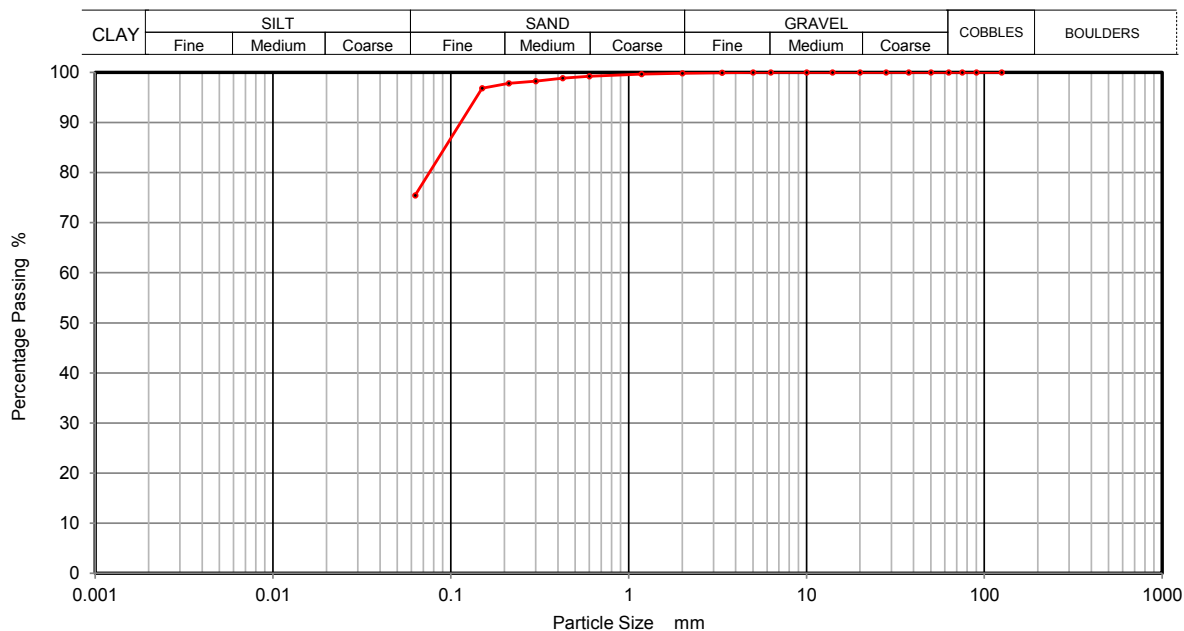
Soil Description *See sample description sheet

Depth Top 1.00

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	99		
0.425	99		
0.3	98		
0.212	98		
0.15	97		
0.063	75		

Sample Proportions	% dry mass
Cobbles	0
Gravel	0
Sand	25
Silt and Clay	75

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP03

Project Name Horton Heath

Sample No. 2

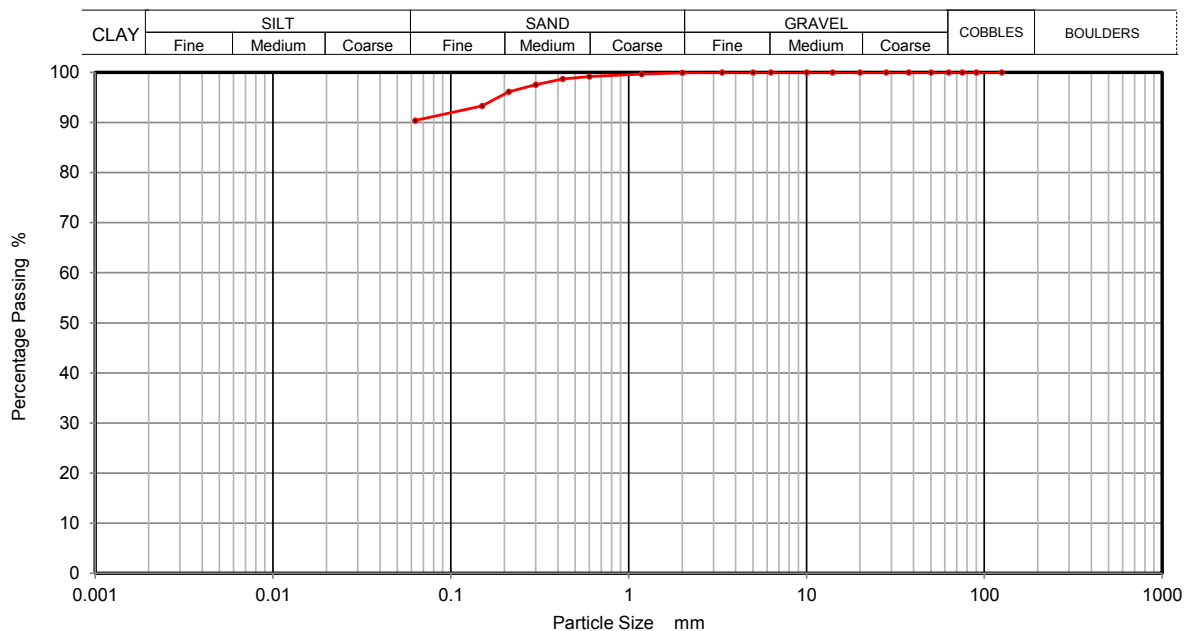
Soil Description *See sample description sheet

Depth Top 0.50

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	99		
0.425	99		
0.3	98		
0.212	96		
0.15	93		
0.063	90		

Sample Proportions	% dry mass
Cobbles	0
Gravel	0
Sand	10
Silt and Clay	90

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP09

Project Name Horton Heath

Sample No. 2

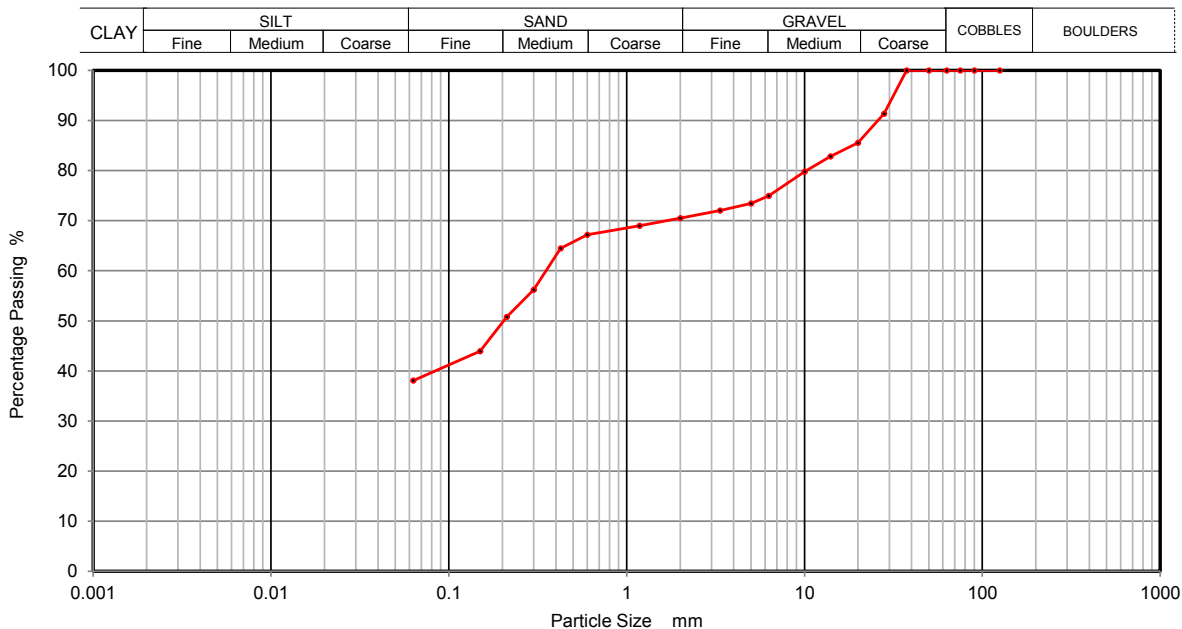
Soil Description *See sample description sheet

Depth Top 0.10

Depth Base

Date Tested 29/11/2022

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	100		
28	91		
20	86		
14	83		
10	80		
6.3	75		
5	73		
3.35	72		
2	70		
1.18	69		
0.6	67		
0.425	64		
0.3	56		
0.212	51		
0.15	44		
0.063	38		

Sample Proportions	% dry mass
Cobbles	0
Gravel	30
Sand	32
Silt and Clay	38

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP13

Project Name Horton Heath

Sample No. 2

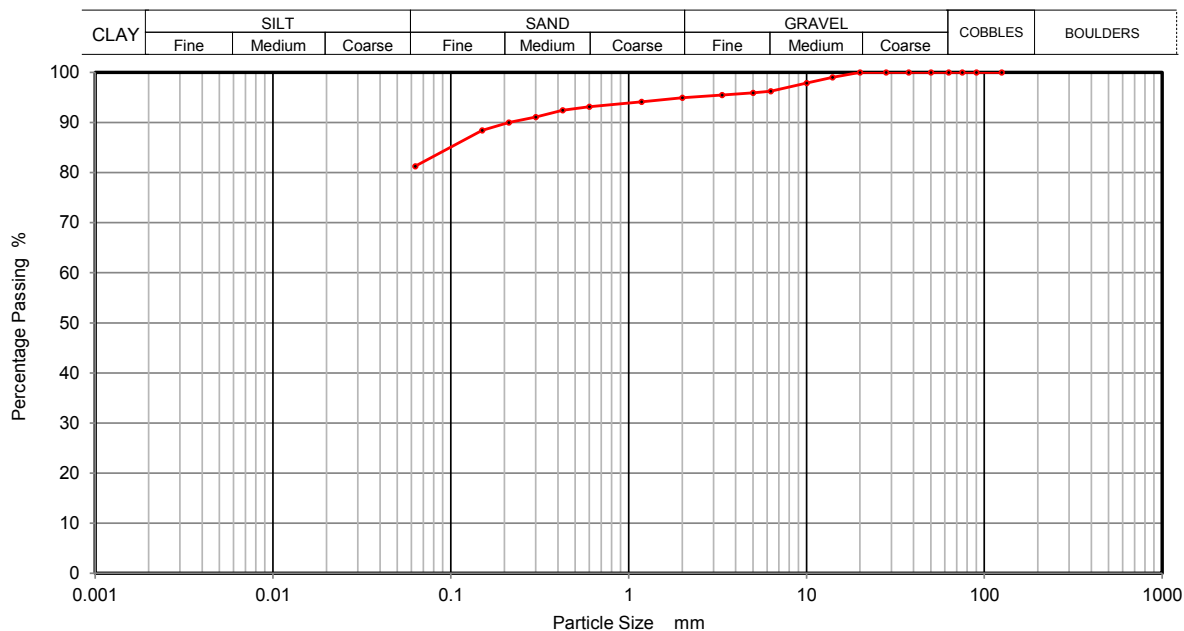
Soil Description *See sample description sheet

Depth Top 0.60

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	99		
10	98		
6.3	96		
5	96		
3.35	95		
2	95		
1.18	94		
0.6	93		
0.425	92		
0.3	91		
0.212	90		
0.15	88		
0.063	81		

Sample Proportions	% dry mass
Cobbles	0
Gravel	5
Sand	14
Silt and Clay	81

Remarks
Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP17

Project Name Horton Heath

Sample No. 2

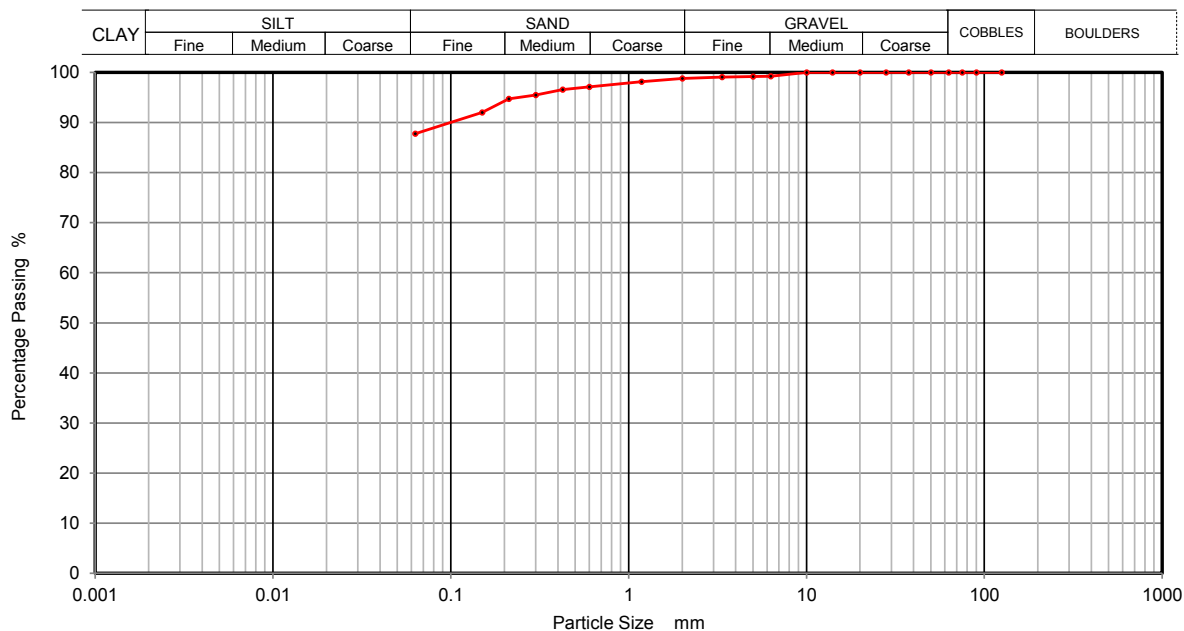
Soil Description *See sample description sheet

Depth Top 0.50

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	99		
5	99		
3.35	99		
2	99		
1.18	98		
0.6	97		
0.425	97		
0.3	95		
0.212	95		
0.15	92		
0.063	88		

Sample Proportions	% dry mass
Cobbles	0
Gravel	1
Sand	11
Silt and Clay	88

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP20

Project Name Horton Heath

Sample No. 2

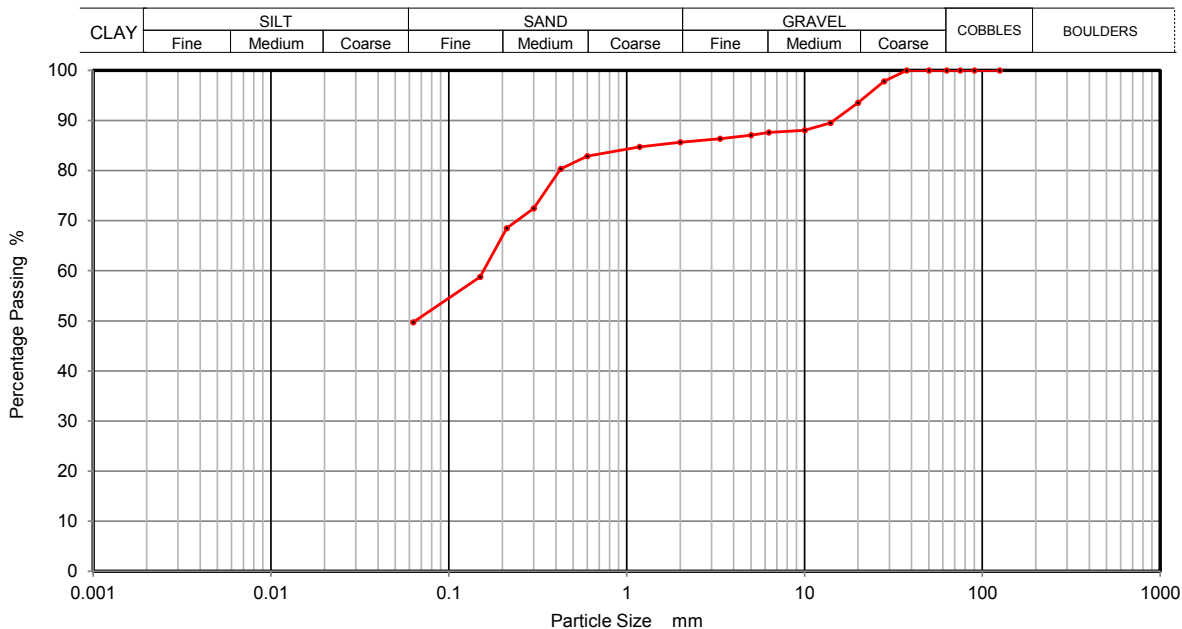
Soil Description *See sample description sheet

Depth Top 0.50

Depth Base

Date Tested 29/11/2022

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	100		
28	98		
20	94		
14	90		
10	88		
6.3	88		
5	87		
3.35	86		
2	86		
1.18	85		
0.6	83		
0.425	80		
0.3	72		
0.212	68		
0.15	59		
0.063	50		

Sample Proportions	% dry mass
Cobbles	0
Gravel	14
Sand	36
Silt and Clay	50

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP24

Project Name Horton Heath

Sample No. 2

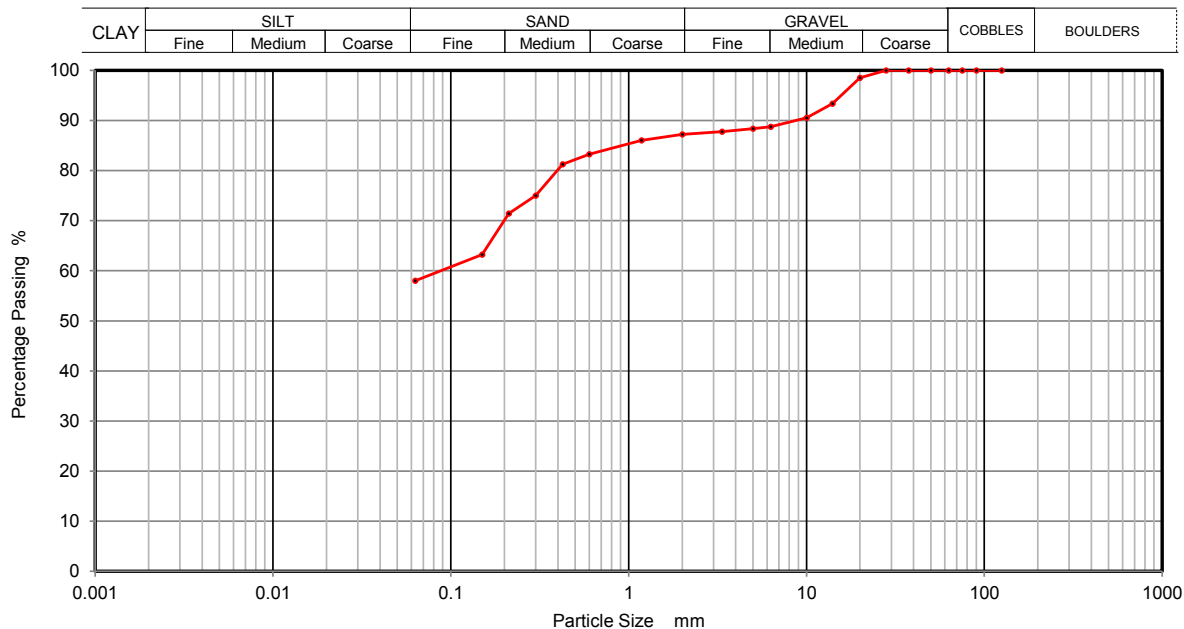
Soil Description *See sample description sheet

Depth Top 0.50

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	99		
14	93		
10	91		
6.3	89		
5	88		
3.35	88		
2	87		
1.18	86		
0.6	83		
0.425	81		
0.3	75		
0.212	71		
0.15	63		
0.063	58		

Sample Proportions	% dry mass
Cobbles	0
Gravel	13
Sand	29
Silt and Clay	58

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP26

Project Name Horton Heath

Sample No. 1

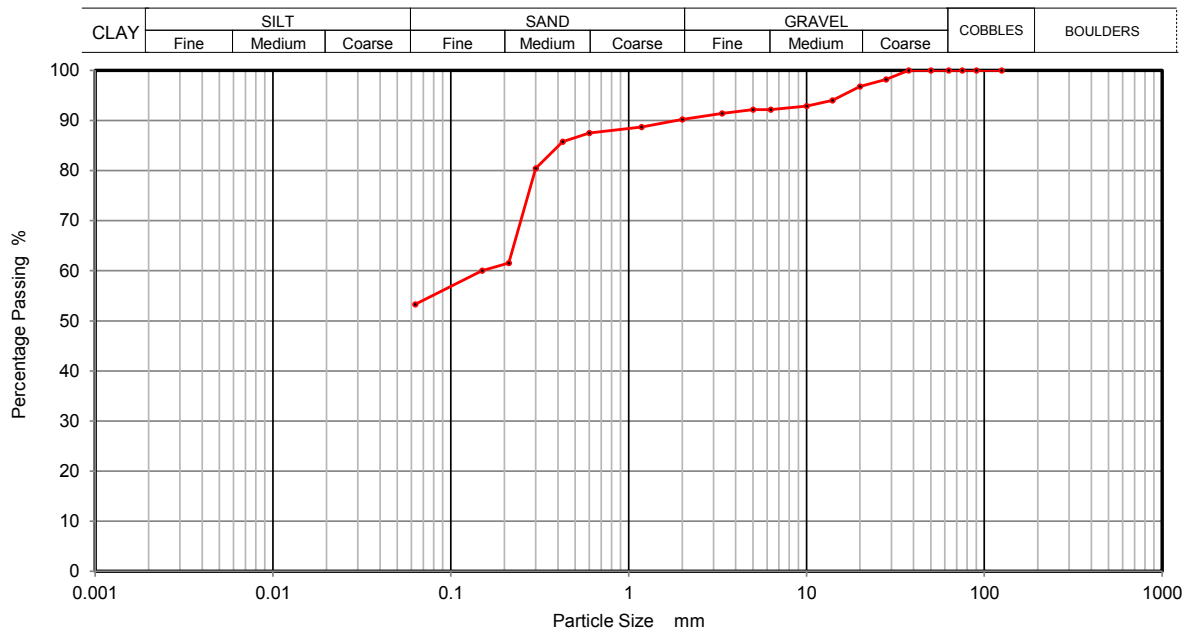
Soil Description *See sample description sheet

Depth Top 0.50

Depth Base

Date Tested 29/11/2022

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	100		
28	98		
20	97		
14	94		
10	93		
6.3	92		
5	92		
3.35	91		
2	90		
1.18	89		
0.6	88		
0.425	86		
0.3	80		
0.212	62		
0.15	60		
0.063	53		

Sample Proportions	% dry mass
Cobbles	0
Gravel	10
Sand	37
Silt and Clay	53

Remarks
Preparation and testing in accordance with BS1377 unless noted below

Operator
David Edwards





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

Contract Number 62358

Borehole/Pit No. TP31

Project Name Horton Heath

Sample No. 2

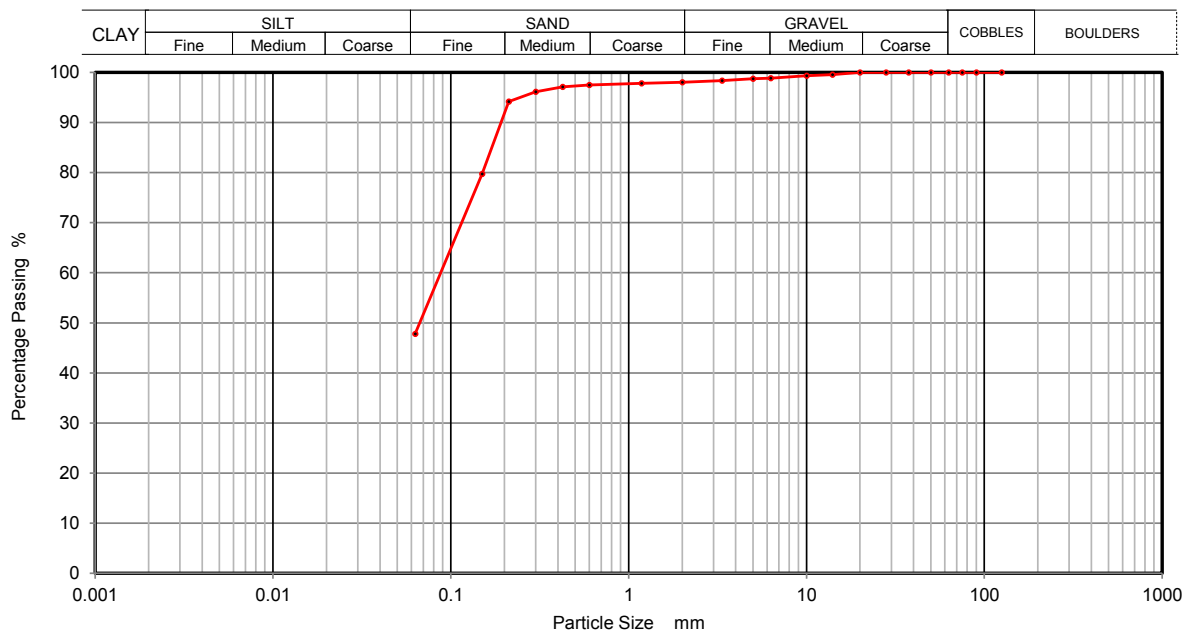
Soil Description *See sample description sheet

Depth Top 0.50

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	99		
6.3	99		
5	99		
3.35	98		
2	98		
1.18	98		
0.6	97		
0.425	97		
0.3	96		
0.212	94		
0.15	80		
0.063	48		

Sample Proportions	% dry mass
Cobbles	0
Gravel	2
Sand	50
Silt and Clay	48

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP32

Project Name Horton Heath

Sample No. 2

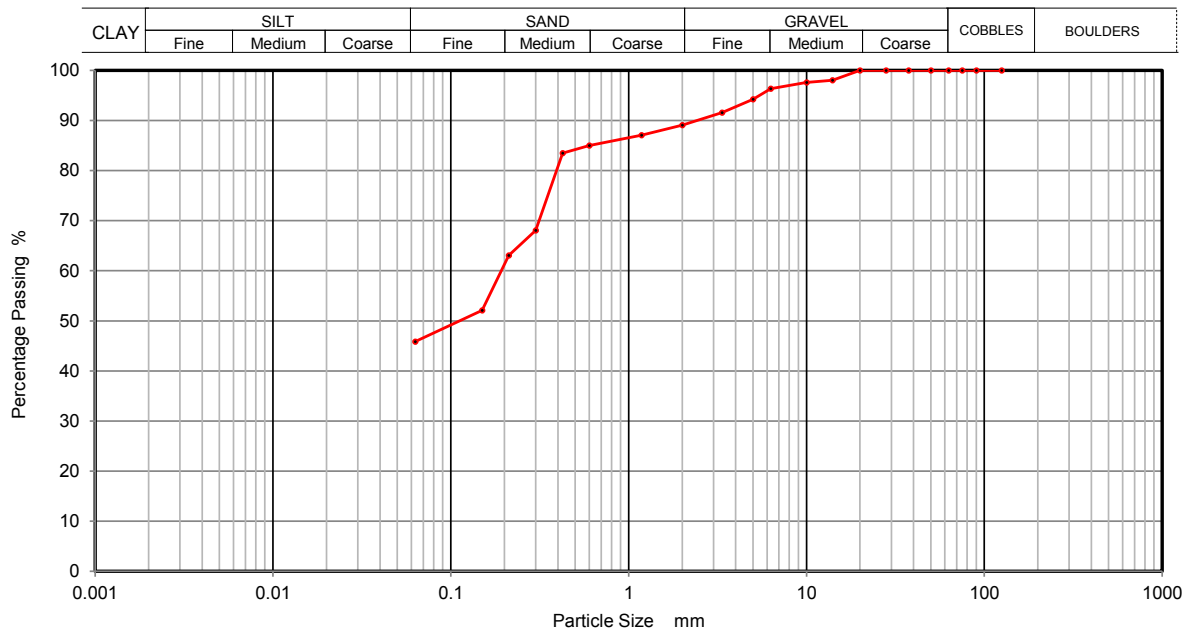
Soil Description *See sample description sheet

Depth Top 0.40

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	98		
10	98		
6.3	96		
5	94		
3.35	92		
2	89		
1.18	87		
0.6	85		
0.425	83		
0.3	68		
0.212	63		
0.15	52		
0.063	46		

Sample Proportions	% dry mass
Cobbles	0
Gravel	11
Sand	43
Silt and Clay	46

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP33

Project Name Horton Heath

Sample No. 2

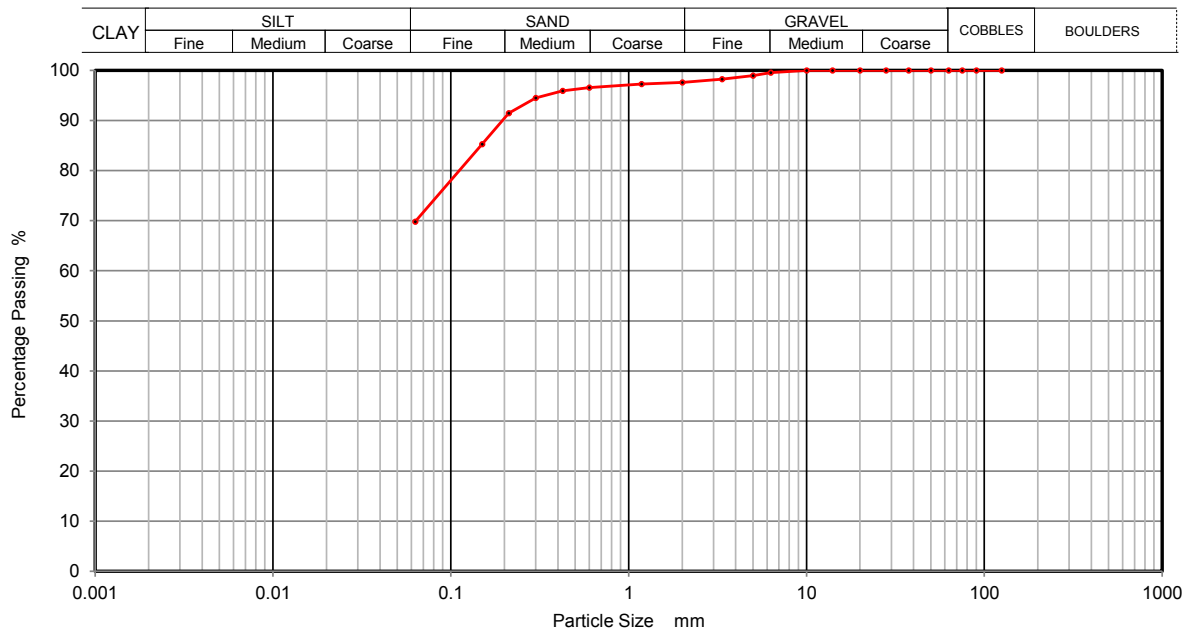
Soil Description *See sample description sheet

Depth Top 0.70

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	99		
3.35	98		
2	98		
1.18	97		
0.6	97		
0.425	96		
0.3	95		
0.212	91		
0.15	85		
0.063	70		

Sample Proportions	% dry mass
Cobbles	0
Gravel	2
Sand	28
Silt and Clay	70

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP34

Project Name Horton Heath

Sample No. 2

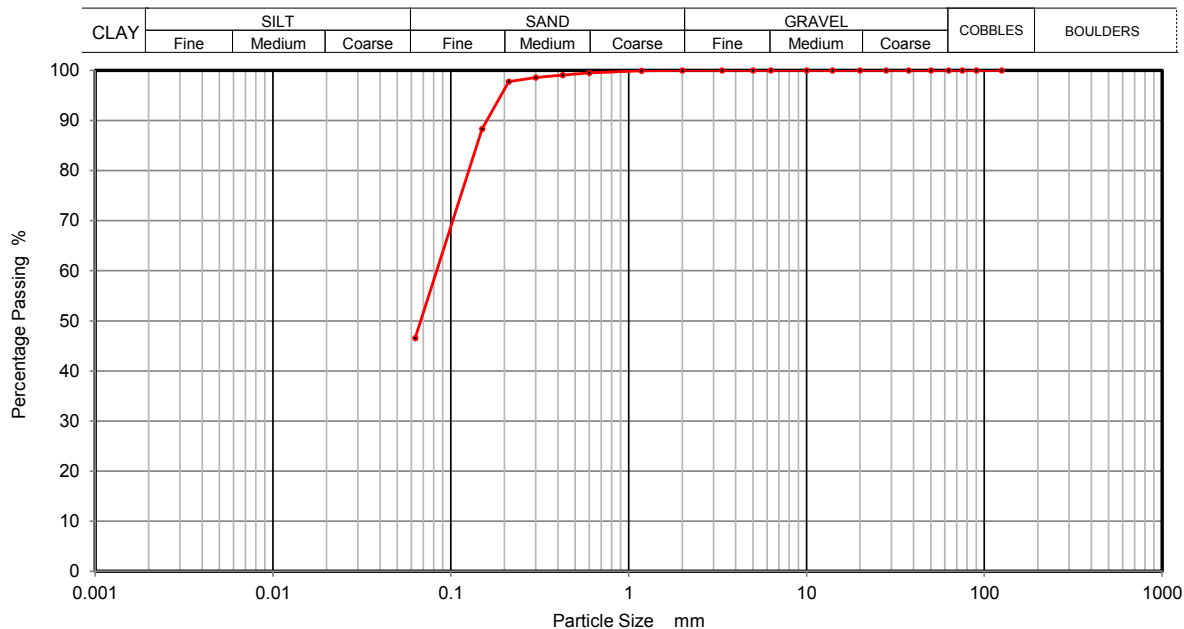
Soil Description *See sample description sheet

Depth Top 0.80

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	99		
0.425	99		
0.3	99		
0.212	98		
0.15	88		
0.063	47		

Sample Proportions	% dry mass
Cobbles	0
Gravel	0
Sand	53
Silt and Clay	47

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP39

Project Name Horton Heath

Sample No. 2

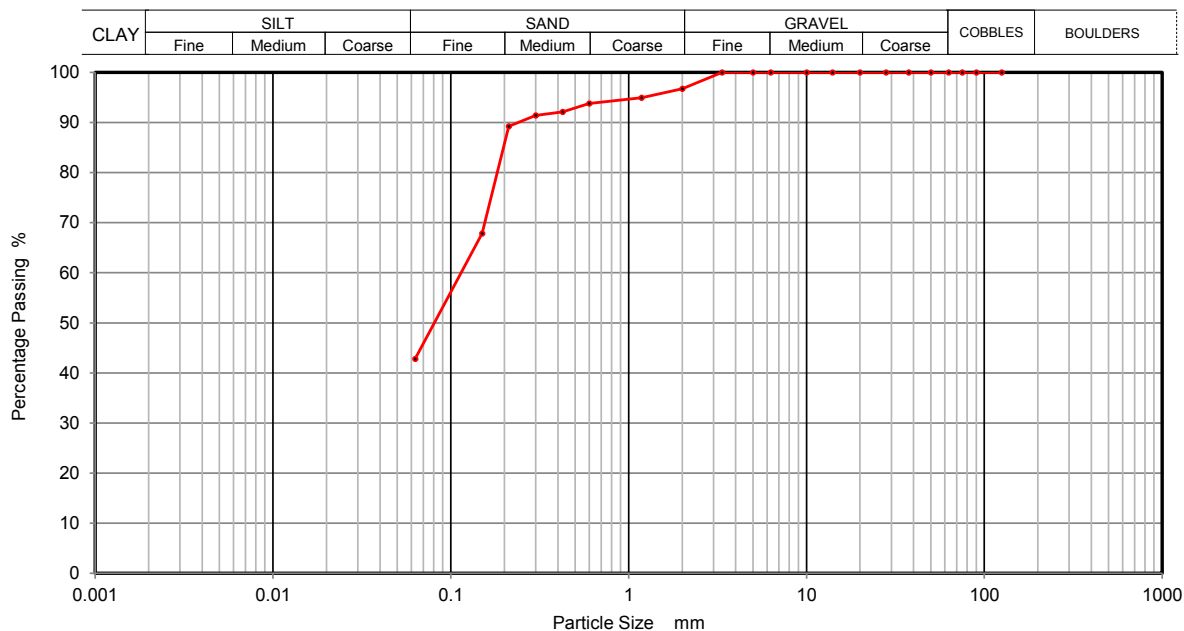
Soil Description *See sample description sheet

Depth Top 0.70

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	97		
1.18	95		
0.6	94		
0.425	92		
0.3	91		
0.212	89		
0.15	68		
0.063	43		

Sample Proportions	% dry mass
Cobbles	0
Gravel	3
Sand	54
Silt and Clay	43

Remarks
Preparation and testing in accordance with BS1377 unless noted below

Operator
David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP40

Project Name Horton Heath

Sample No. 2

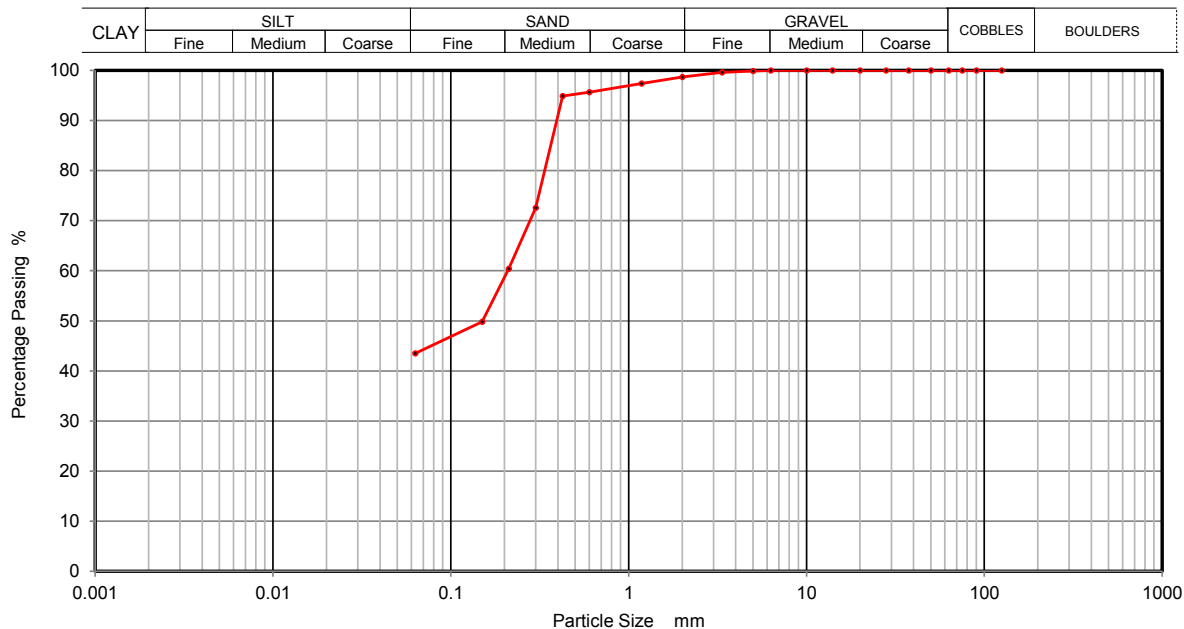
Soil Description *See sample description sheet

Depth Top 0.60

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	99		
1.18	97		
0.6	96		
0.425	95		
0.3	73		
0.212	60		
0.15	50		
0.063	43		

Sample Proportions	% dry mass
Cobbles	0
Gravel	1
Sand	56
Silt and Clay	43

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP41

Project Name Horton Heath

Sample No. 2

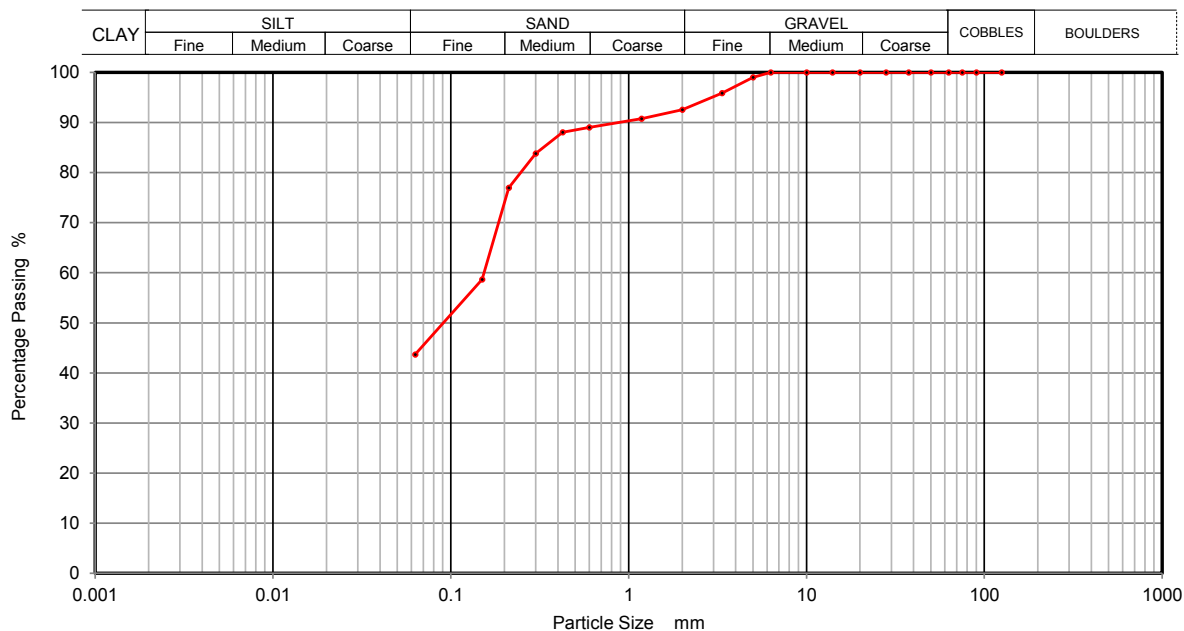
Soil Description *See sample description sheet

Depth Top 0.40

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	99		
3.35	96		
2	93		
1.18	91		
0.6	89		
0.425	88		
0.3	84		
0.212	77		
0.15	59		
0.063	44		

Sample Proportions	% dry mass
Cobbles	0
Gravel	7
Sand	49
Silt and Clay	44

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP43

Project Name Horton Heath

Sample No. 2

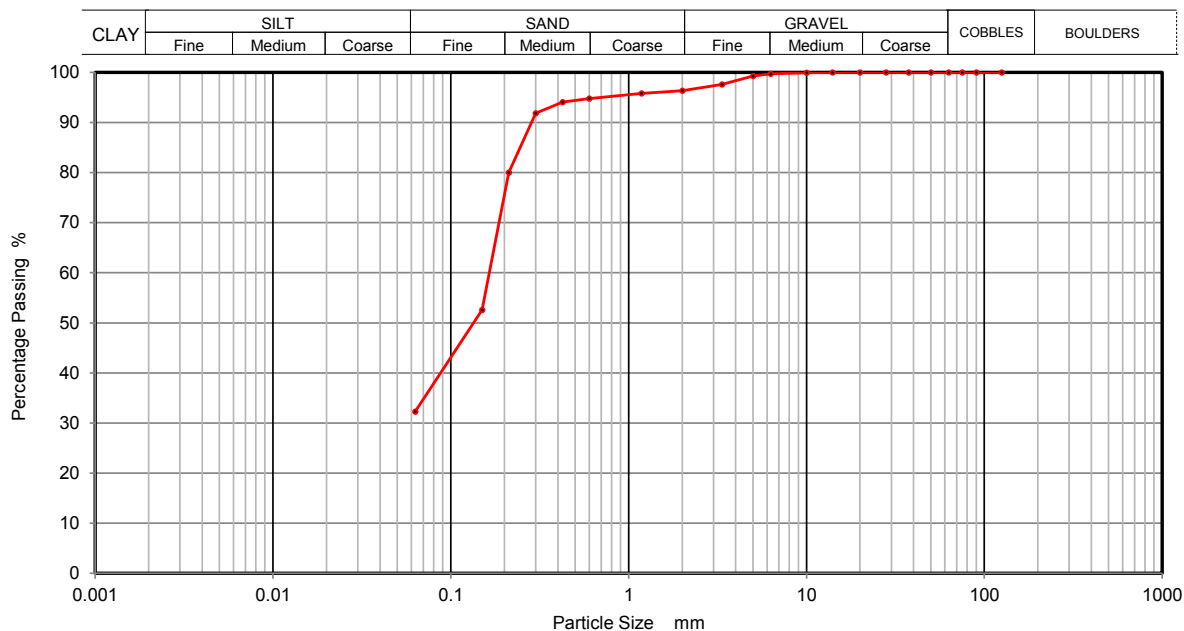
Soil Description *See sample description sheet

Depth Top 0.60

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	99		
3.35	98		
2	96		
1.18	96		
0.6	95		
0.425	94		
0.3	92		
0.212	80		
0.15	53		
0.063	32		

Sample Proportions	% dry mass
Cobbles	0
Gravel	4
Sand	64
Silt and Clay	32

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP44

Project Name Horton Heath

Sample No. 2

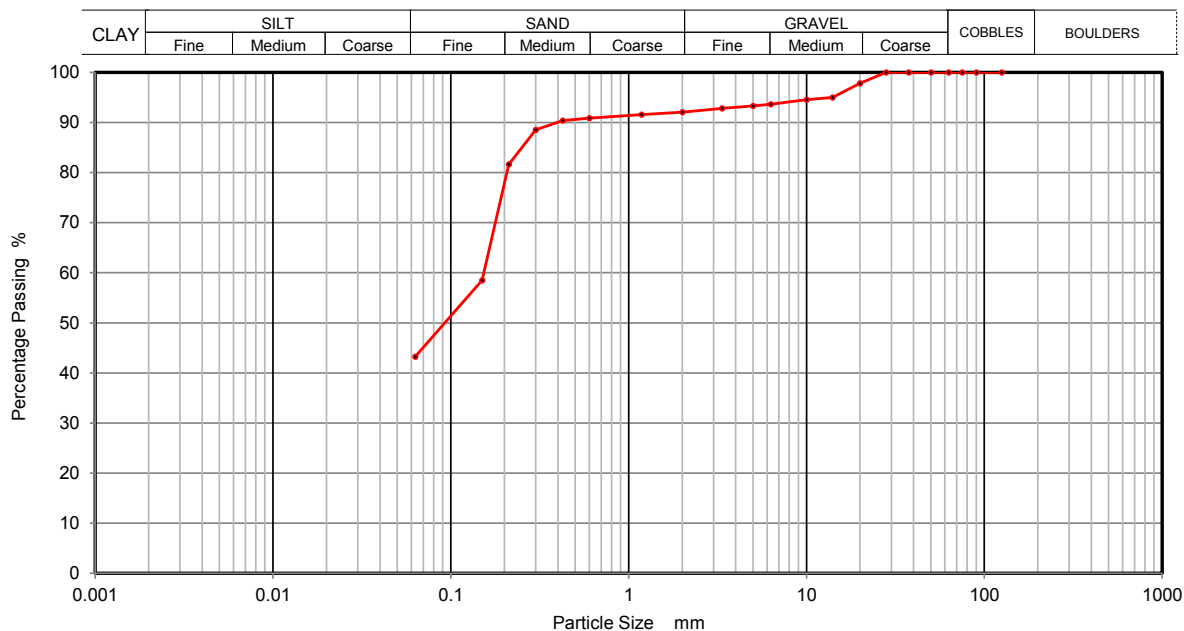
Soil Description *See sample description sheet

Depth Top 0.80

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	98		
14	95		
10	95		
6.3	94		
5	93		
3.35	93		
2	92		
1.18	92		
0.6	91		
0.425	90		
0.3	89		
0.212	82		
0.15	58		
0.063	43		

Sample Proportions	% dry mass
Cobbles	0
Gravel	8
Sand	49
Silt and Clay	43

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP45

Project Name Horton Heath

Sample No. 2

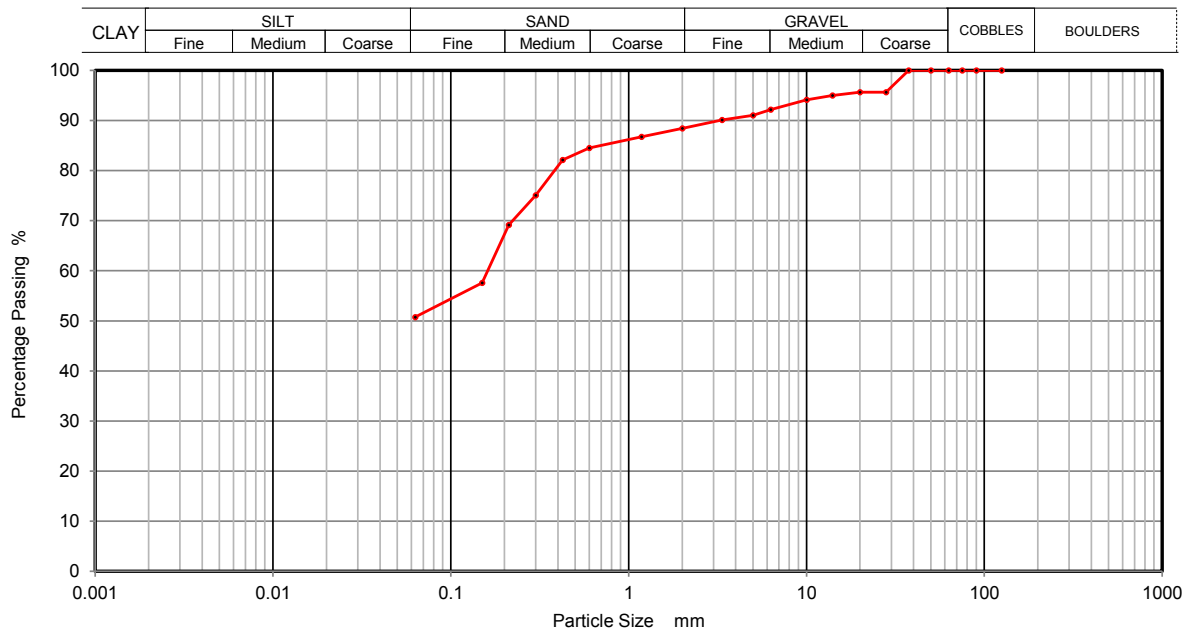
Soil Description *See sample description sheet

Depth Top 0.50

Depth Base

Date Tested 29/11/2022

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	100		
28	96		
20	96		
14	95		
10	94		
6.3	92		
5	91		
3.35	90		
2	88		
1.18	87		
0.6	85		
0.425	82		
0.3	75		
0.212	69		
0.15	58		
0.063	51		

Sample Proportions	% dry mass
Cobbles	0
Gravel	12
Sand	37
Silt and Clay	51

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP46

Project Name Horton Heath

Sample No. 1

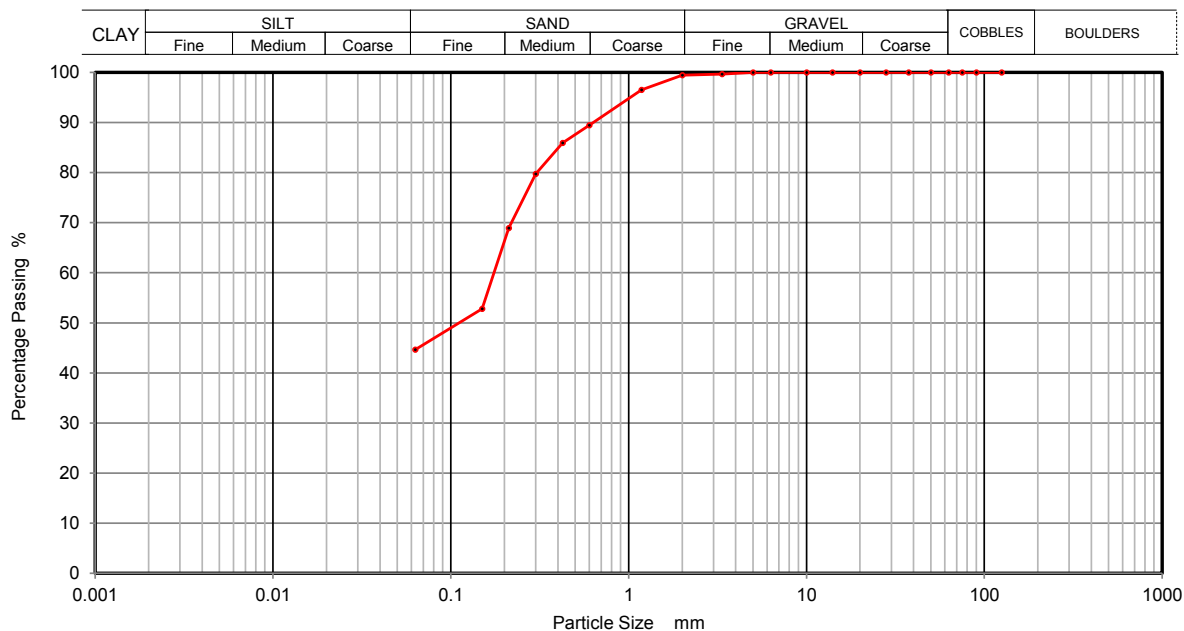
Soil Description *See sample description sheet

Depth Top 2.40

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	99		
1.18	97		
0.6	89		
0.425	86		
0.3	80		
0.212	69		
0.15	53		
0.063	45		

Sample Proportions	% dry mass
Cobbles	0
Gravel	1
Sand	54
Silt and Clay	45

Remarks
Preparation and testing in accordance with BS1377 unless noted below

Operator
David Edwards





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

Contract Number 62358

Borehole/Pit No. TP47

Project Name Horton Heath

Sample No. 1

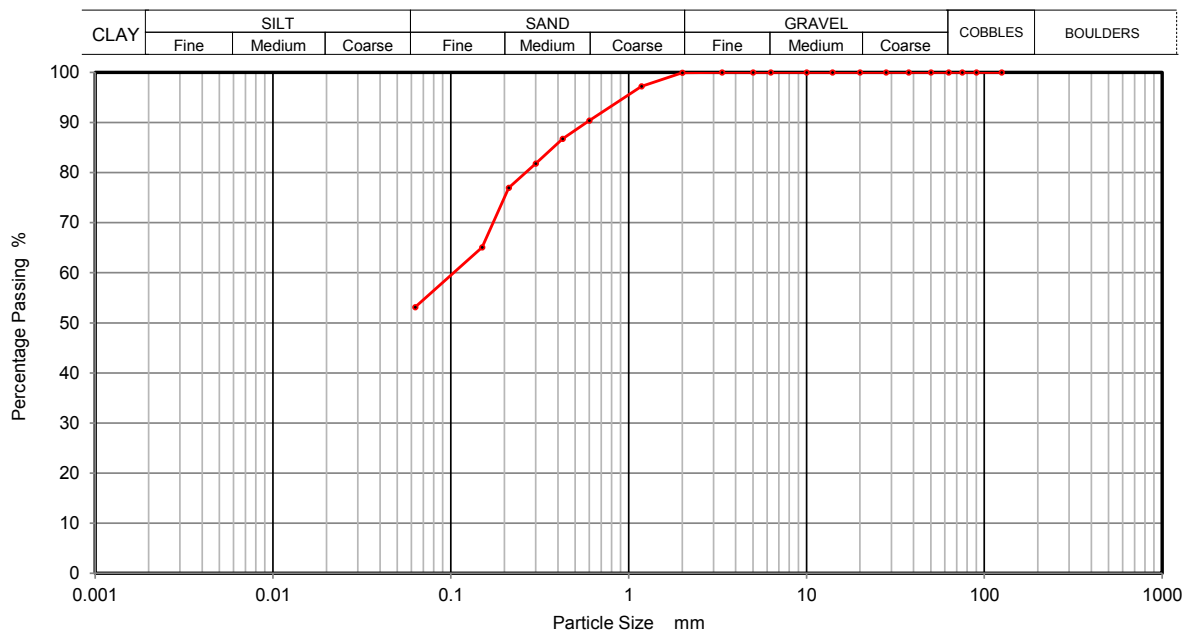
Soil Description *See sample description sheet

Depth Top 2.40

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	97		
0.6	90		
0.425	87		
0.3	82		
0.212	77		
0.15	65		
0.063	53		

Sample Proportions	% dry mass
Cobbles	0
Gravel	0
Sand	47
Silt and Clay	53

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator
David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP48

Project Name Horton Heath

Sample No. 1

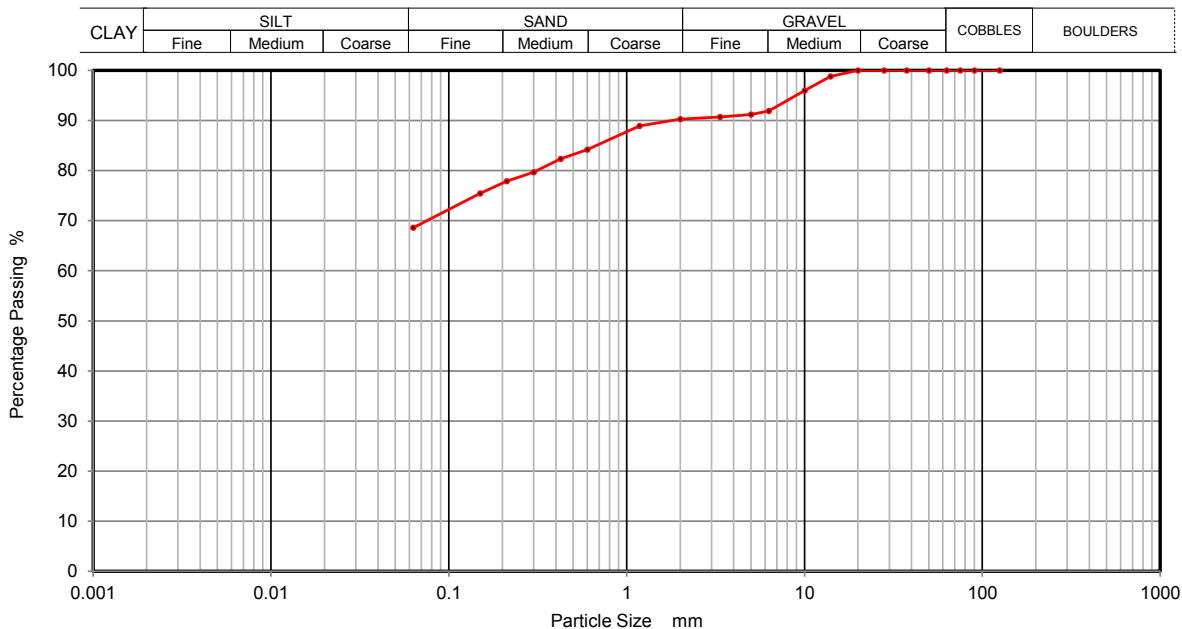
Soil Description *See sample description sheet

Depth Top 2.30

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	99		
10	96		
6.3	92		
5	91		
3.35	91		
2	90		
1.18	89		
0.6	84		
0.425	82		
0.3	80		
0.212	78		
0.15	75		
0.063	69		

Sample Proportions	% dry mass
Cobbles	0
Gravel	10
Sand	21
Silt and Clay	69

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP49

Project Name Horton Heath

Sample No. 1

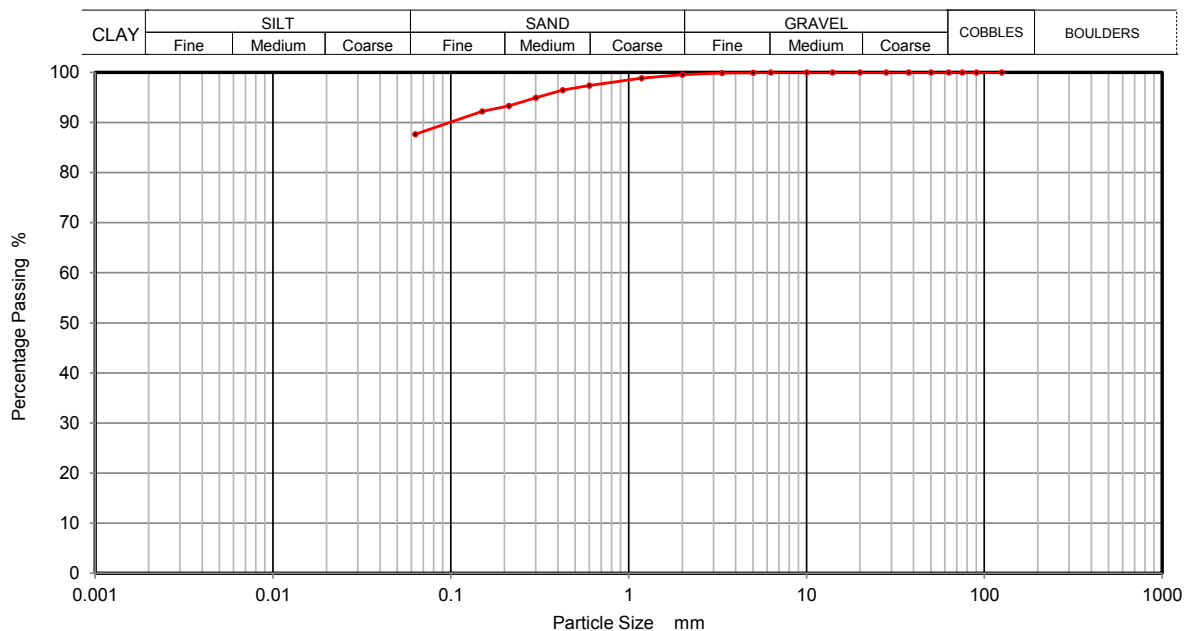
Soil Description *See sample description sheet

Depth Top 2.20

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	99		
0.6	97		
0.425	96		
0.3	95		
0.212	93		
0.15	92		
0.063	88		

Sample Proportions	% dry mass
Cobbles	0
Gravel	0
Sand	12
Silt and Clay	88

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP50

Project Name Horton Heath

Sample No. 1

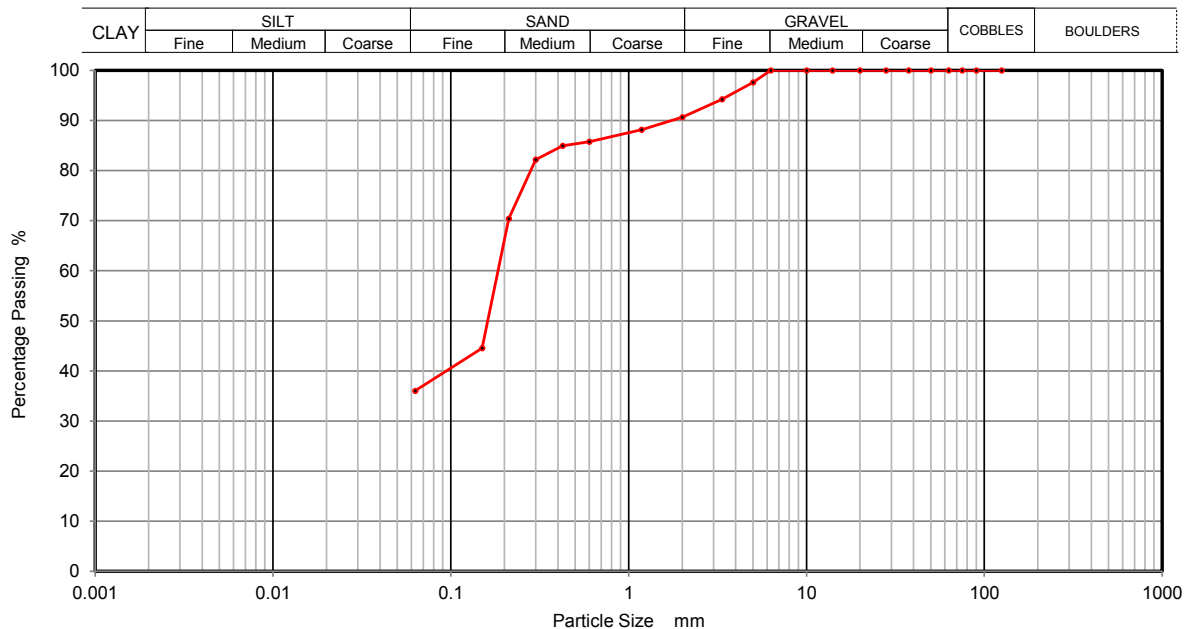
Soil Description *See sample description sheet

Depth Top 2.30

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	98		
3.35	94		
2	91		
1.18	88		
0.6	86		
0.425	85		
0.3	82		
0.212	70		
0.15	45		
0.063	36		

Sample Proportions	% dry mass
Cobbles	0
Gravel	9
Sand	55
Silt and Clay	36

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788



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

Contract Number 62358

Borehole/Pit No. TP51

Project Name Horton Heath

Sample No. 1

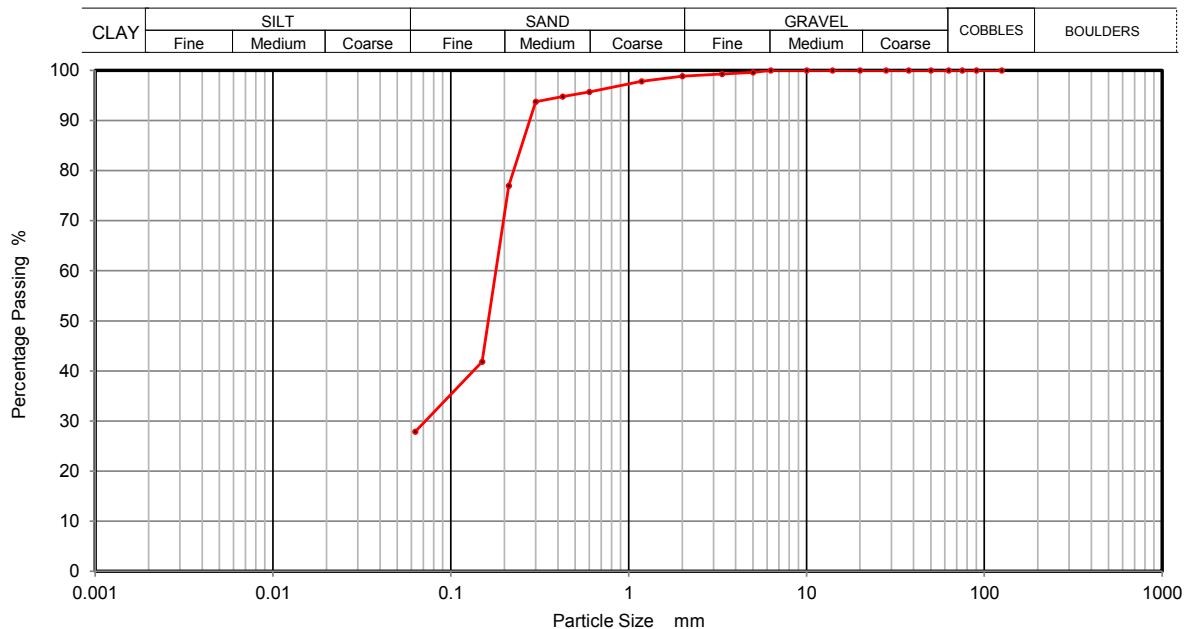
Soil Description *See sample description sheet

Depth Top 2.50

Depth Base

Date Tested 29/11/2022

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	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	99		
2	99		
1.18	98		
0.6	96		
0.425	95		
0.3	94		
0.212	77		
0.15	42		
0.063	28		

Sample Proportions	% dry mass
Cobbles	0
Gravel	1
Sand	71
Silt and Clay	28

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

David Edwards



2788

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No SA01

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 2.00

Compaction Method 2.5 Kg Rammer

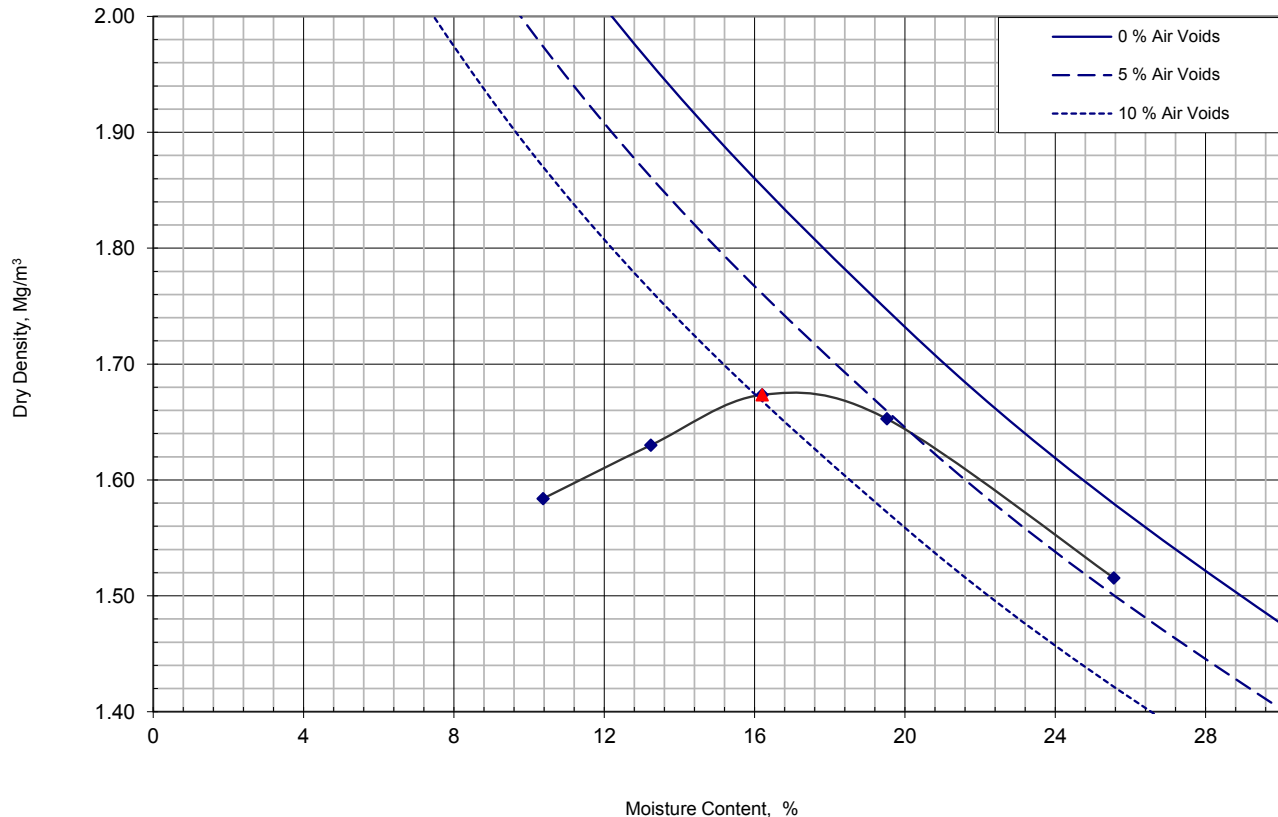
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet + 5% Lime

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	10	13	16	20	26							
Bulk Density	1.75	1.85	1.94	1.98	1.90							
Dry Density	1.58	1.63	1.67	1.65	1.52							

Initial Moisture Content	26	%
Maximum Dry Density	1.67	Mg/m3
Optimum Moisture Content	16	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	0	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No SA03

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 1.50

Compaction Method 2.5 Kg Rammer

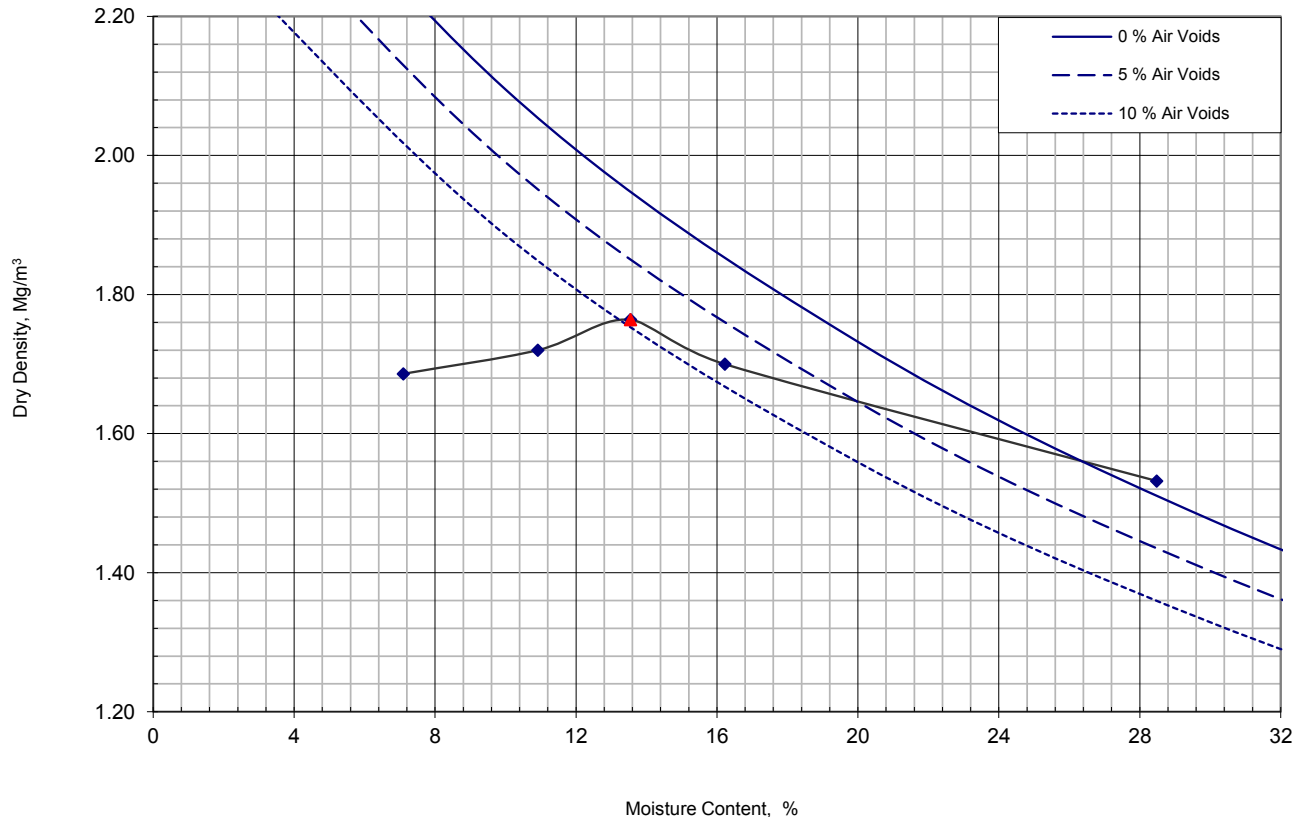
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5						
Moisture Content	7.1	11	14	16	28						
Bulk Density	1.81	1.91	2.00	1.98	1.97						
Dry Density	1.69	1.72	1.76	1.70	1.53						

Initial Moisture Content	28	%
Maximum Dry Density	1.76	Mg/m3
Optimum Moisture Content	14	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	0	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No SA04

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 0.30

Compaction Method 2.5 Kg Rammer

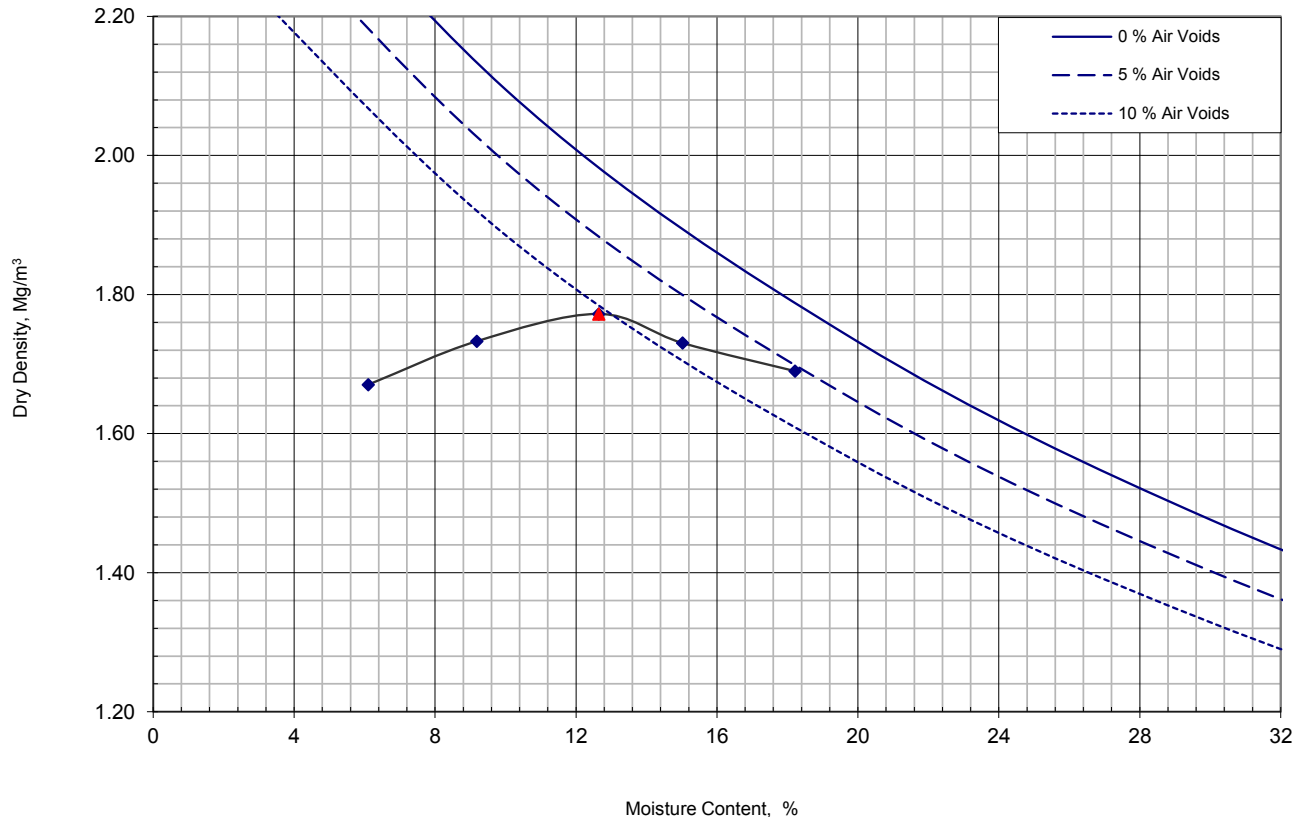
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	6.1	9.2	13	15	18							
Bulk Density	1.77	1.89	2.00	1.99	2.00							
Dry Density	1.67	1.73	1.77	1.73	1.69							

Initial Moisture Content	15	%
Maximum Dry Density	1.77	Mg/m3
Optimum Moisture Content	13	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	15	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No SA05

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 1.50

Compaction Method 2.5 Kg Rammer

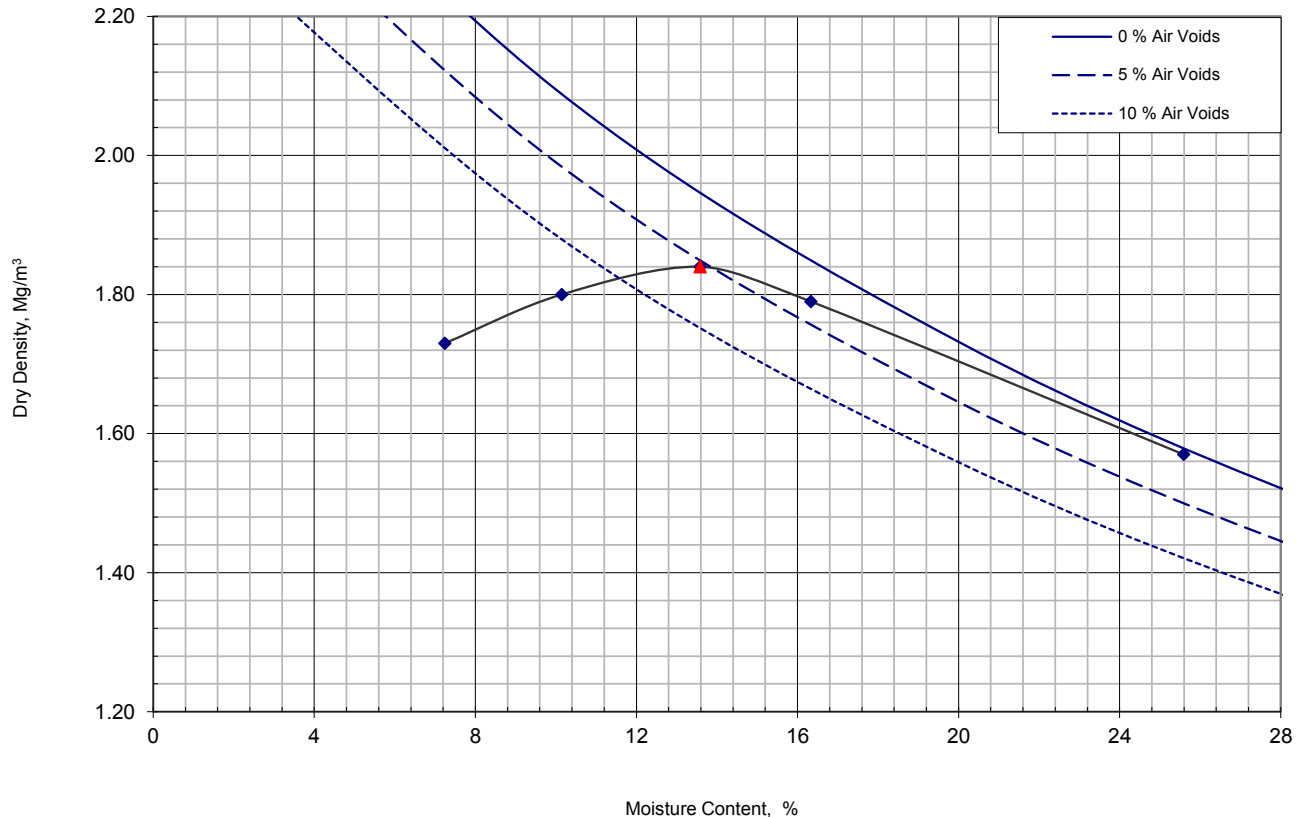
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	7.2	10	14	16	26							
Bulk Density	1.86	1.98	2.09	2.08	1.97							
Dry Density	1.73	1.80	1.84	1.79	1.57							

Initial Moisture Content	26	%
Maximum Dry Density	1.84	Mg/m ³
Optimum Moisture Content	14	%
Particle Density	2.65 Assumed	Mg/m ³
Material Retained 37.5mm	0	%
Material Retained 20mm	0	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No SA07

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 1.70

Compaction Method 2.5 Kg Rammer

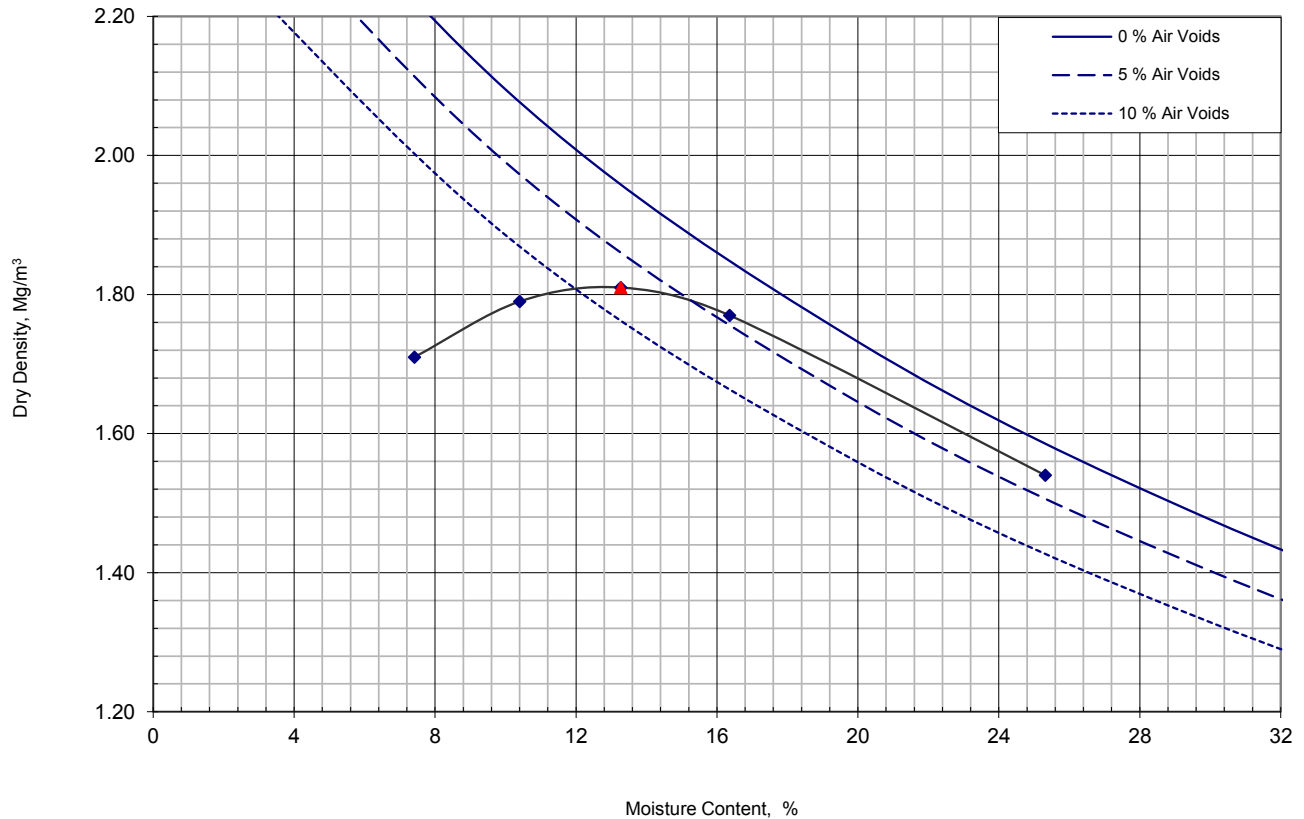
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	7.4	10	13	16	25							
Bulk Density	1.84	1.98	2.05	2.06	1.93							
Dry Density	1.71	1.79	1.81	1.77	1.54							

Initial Moisture Content	25	%
Maximum Dry Density	1.81	Mg/m ³
Optimum Moisture Content	13	%
Particle Density	2.65 Assumed	Mg/m ³
Material Retained 37.5mm	0	%
Material Retained 20mm	0	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No SA08

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 1.20

Compaction Method 2.5 Kg Rammer

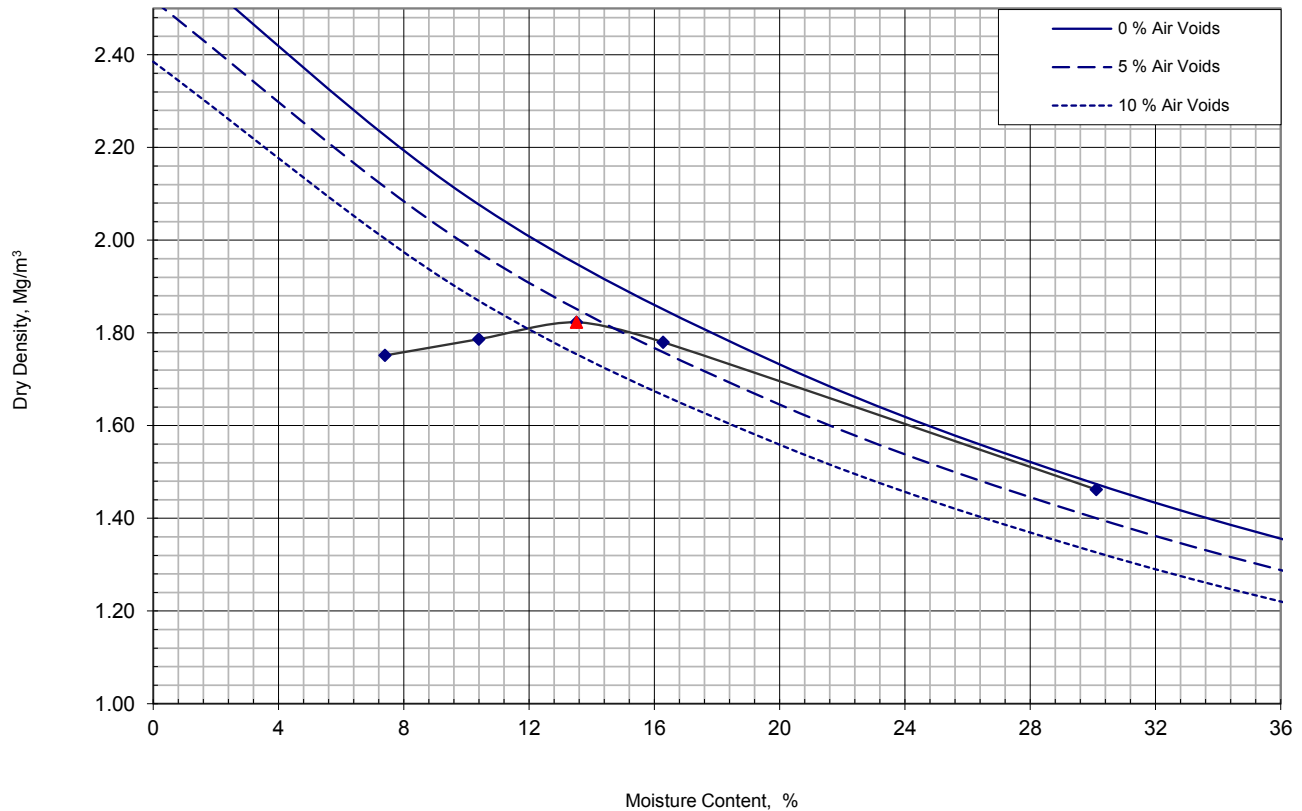
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	7.4	10	14	16	30							
Bulk Density	1.88	1.97	2.07	2.07	1.90							
Dry Density	1.75	1.79	1.82	1.78	1.46							

Initial Moisture Content	30	%
Maximum Dry Density	1.82	Mg/m3
Optimum Moisture Content	14	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	0	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No SA09

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 1.30

Compaction Method 2.5 Kg Rammer

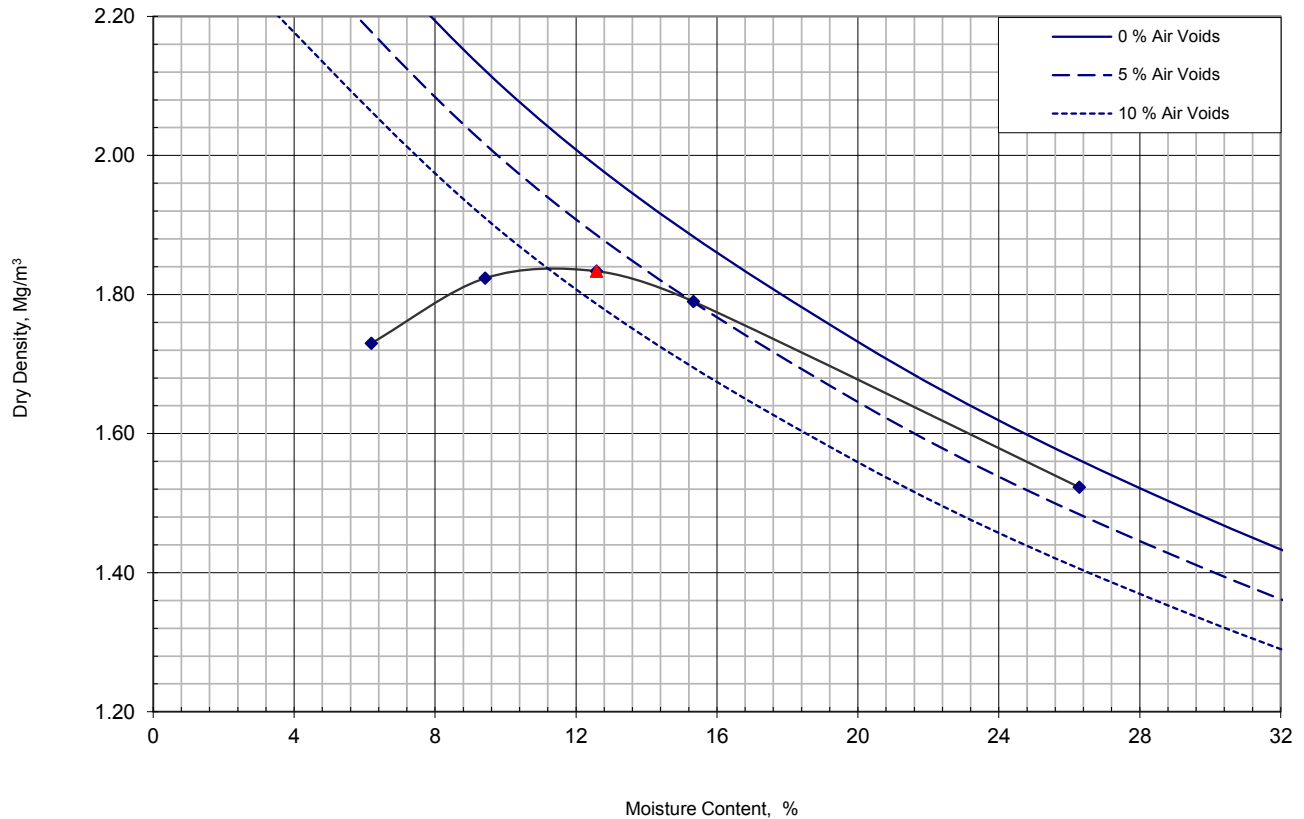
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	6.2	9.4	13	15	26							
Bulk Density	1.84	2.00	2.06	2.06	1.92							
Dry Density	1.73	1.82	1.83	1.79	1.52							

Initial Moisture Content	26	%
Maximum Dry Density	1.83	Mg/m3
Optimum Moisture Content	13	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	0	%

Operator

Conor

Dry Density / Moisture Content Relationship **BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No SA11

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 1.00

Compaction Method 2.5 Kg Rammer

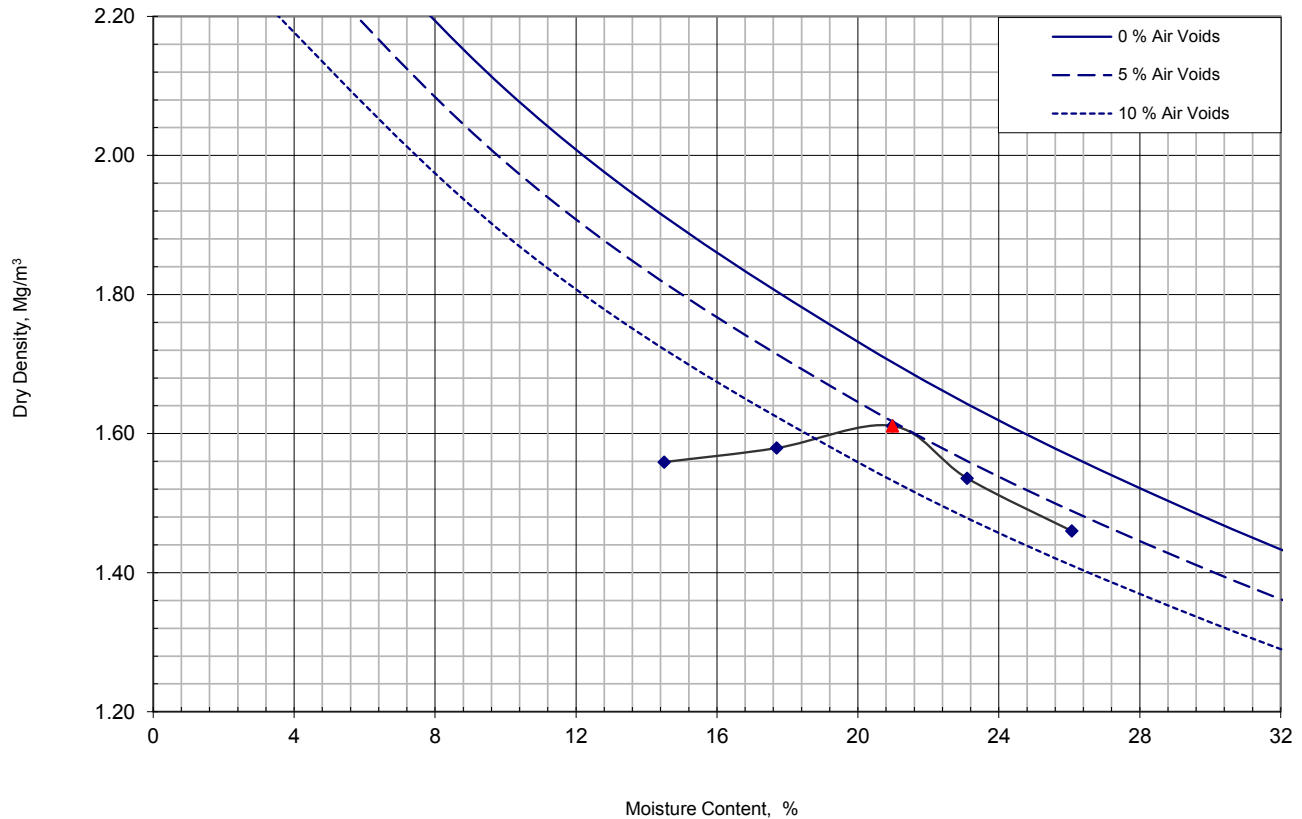
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet + 5% Lime

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	15	18	21	23	26							
Bulk Density	1.79	1.86	1.95	1.89	1.84							
Dry Density	1.56	1.58	1.61	1.54	1.46							

Initial Moisture Content	21	%
Maximum Dry Density	1.61	Mg/m3
Optimum Moisture Content	21	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	0	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No TP09

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 0.10

Compaction Method 2.5 Kg Rammer

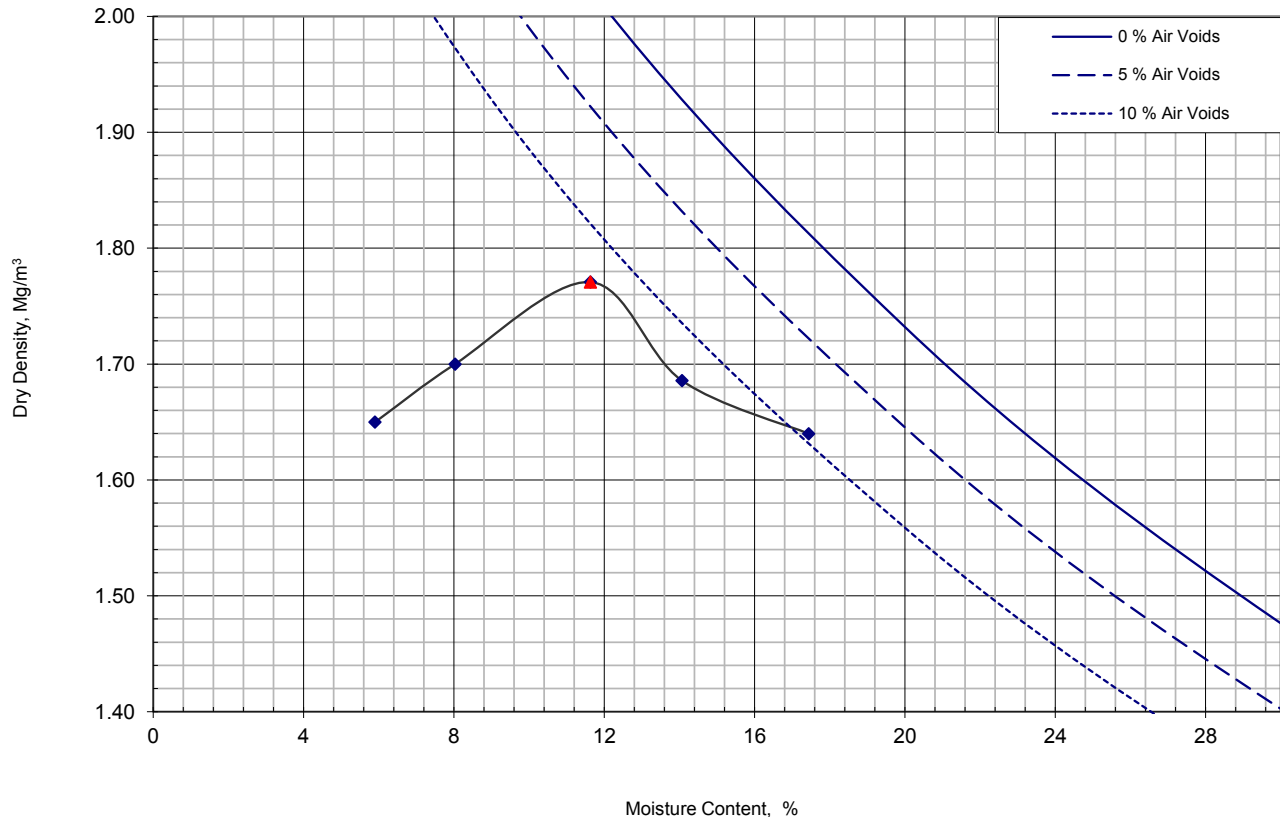
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet + 5% Lime

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	5.9	8.0	12	14	17							
Bulk Density	1.75	1.84	1.98	1.92	1.93							
Dry Density	1.65	1.70	1.77	1.69	1.64							

Initial Moisture Content	12	%
Maximum Dry Density	1.77	Mg/m3
Optimum Moisture Content	12	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	14	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No TP17

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 0.50

Compaction Method 2.5 Kg Rammer

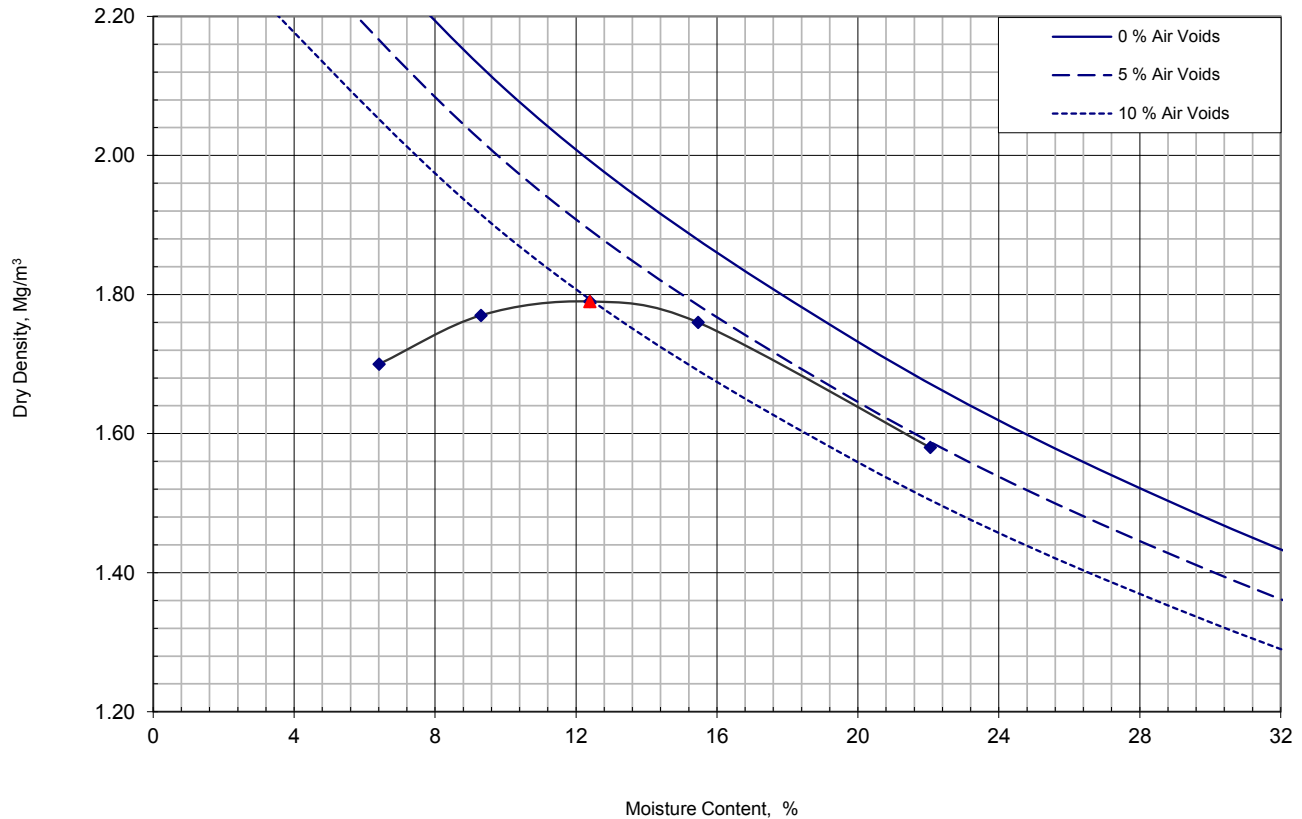
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	6.4	9.3	12	15	22							
Bulk Density	1.81	1.93	2.01	2.03	1.93							
Dry Density	1.70	1.77	1.79	1.76	1.58							

Initial Moisture Content	22	%
Maximum Dry Density	1.79	Mg/m ³
Optimum Moisture Content	12	%
Particle Density	2.65 Assumed	Mg/m ³
Material Retained 37.5mm	0	%
Material Retained 20mm	0	%

Operator

Conor

Dry Density / Moisture Content Relationship BS 1377:Part 4:1990

Contract Number 62358

Borehole / Pit No TP24

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 0.50

Compaction Method 2.5 Kg Rammer

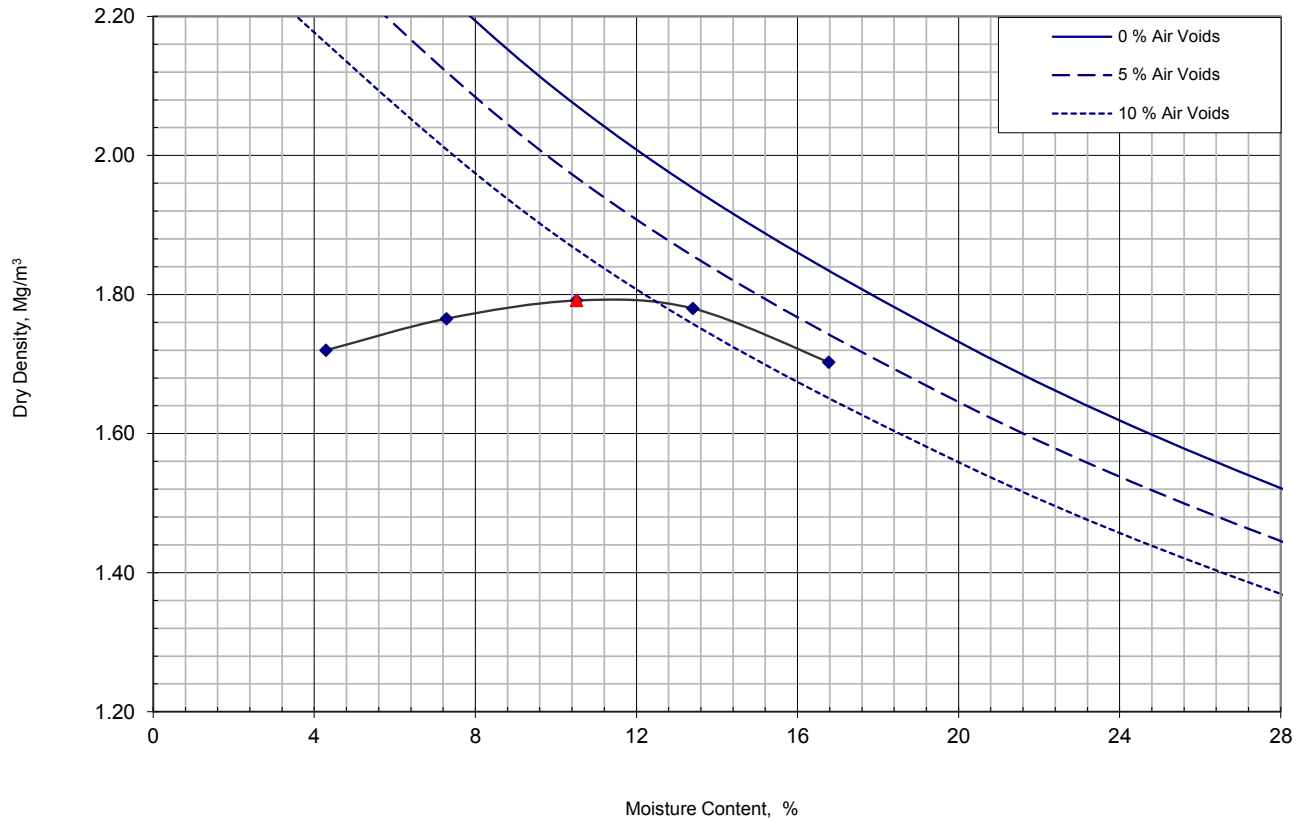
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	4.3	7.3	11	13	17							
Bulk Density	1.79	1.89	1.98	2.02	1.99							
Dry Density	1.72	1.77	1.79	1.78	1.70							

Initial Moisture Content	17	%
Maximum Dry Density	1.79	Mg/m ³
Optimum Moisture Content	11	%
Particle Density	2.65 Assumed	Mg/m ³
Material Retained 37.5mm	0	%
Material Retained 20mm	1	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No TP26

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 0.50

Compaction Method 2.5 Kg Rammer

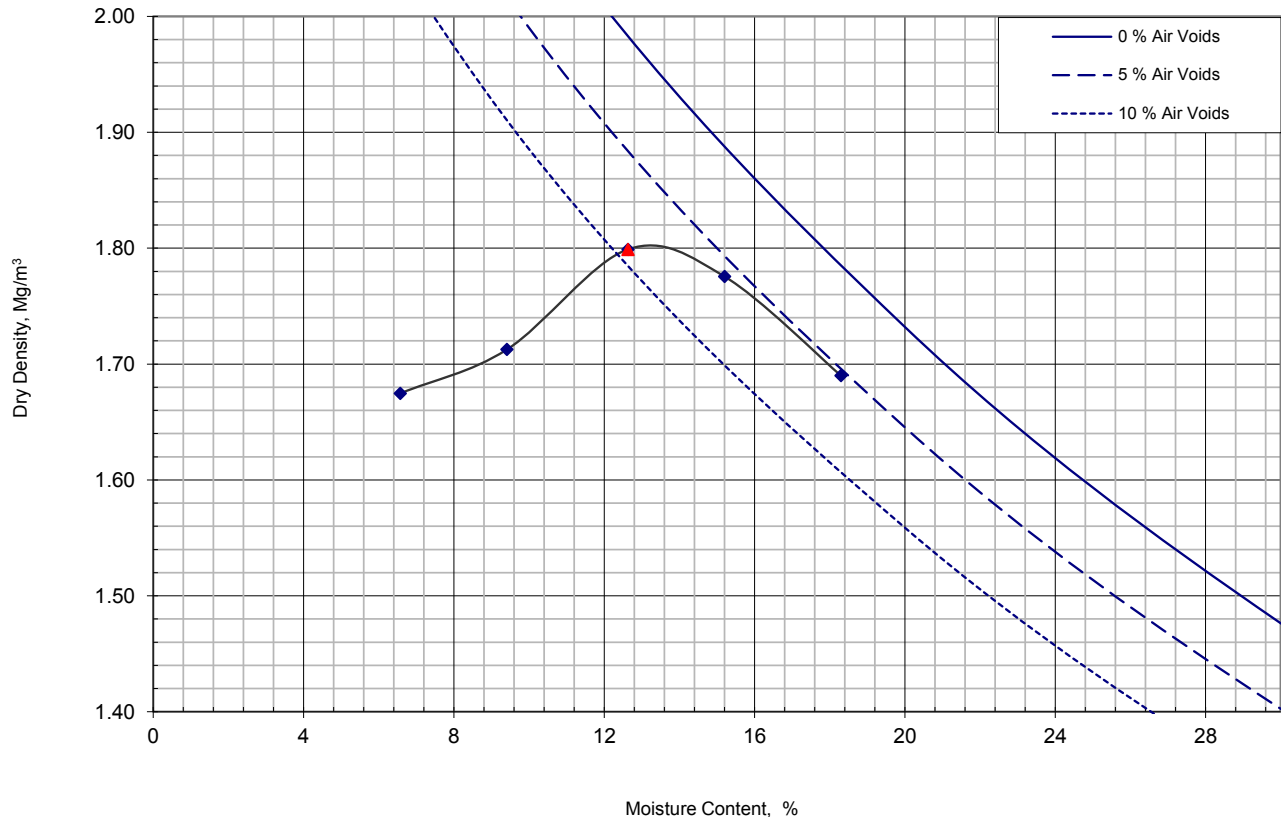
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet + 5% Lime

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	6.6	9.4	13	15	18							
Bulk Density	1.78	1.87	2.03	2.05	2.00							
Dry Density	1.67	1.71	1.80	1.78	1.69							

Initial Moisture Content	13	%
Maximum Dry Density	1.80	Mg/m3
Optimum Moisture Content	13	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	3	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No TP31

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 0.50

Compaction Method 2.5 Kg Rammer

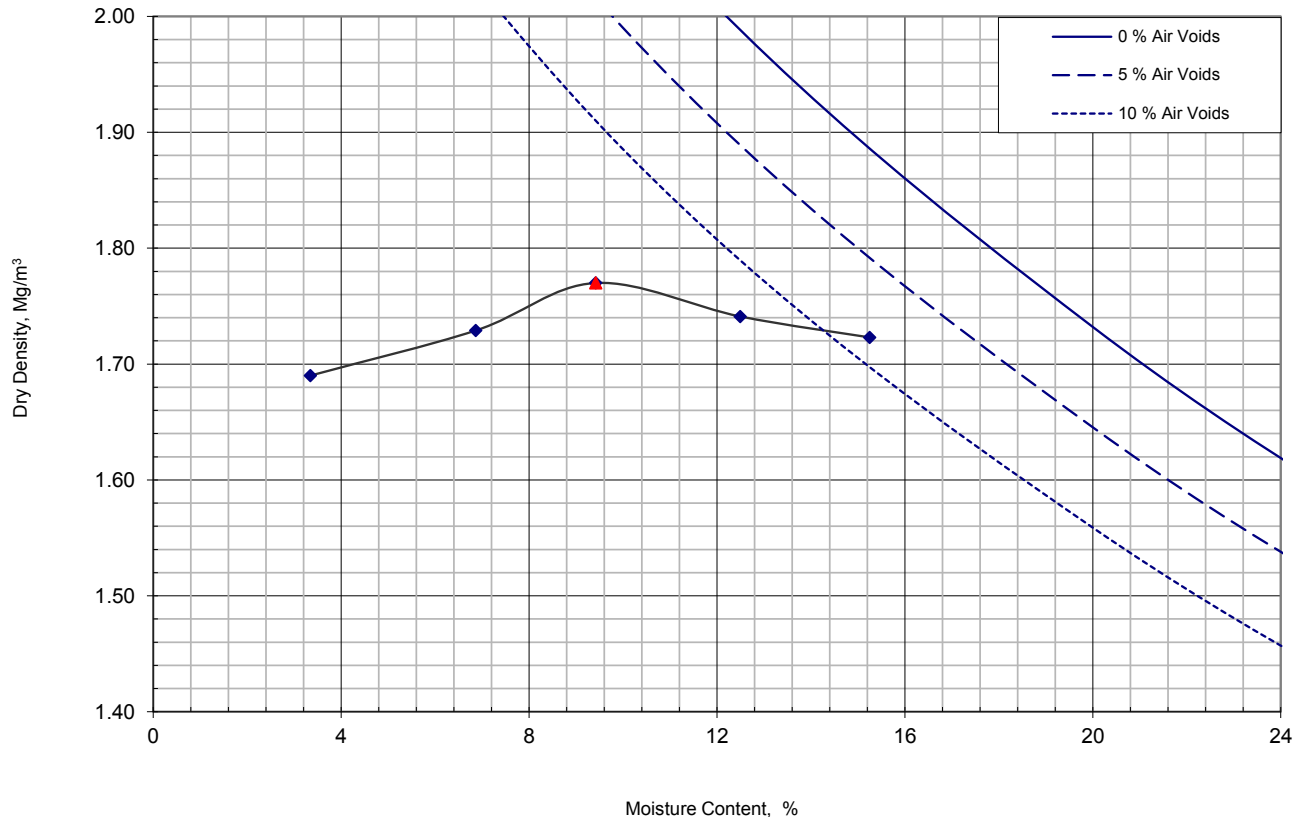
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet + 5% Lime

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	3.3	6.9	9.4	12	15							
Bulk Density	1.75	1.85	1.94	1.96	1.99							
Dry Density	1.69	1.73	1.77	1.74	1.72							

Initial Moisture Content	6.9	%
Maximum Dry Density	1.77	Mg/m3
Optimum Moisture Content	9.4	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	0	%

Operator

Conor

Dry Density / Moisture Content Relationship **BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No TP32

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 0.40

Compaction Method 2.5 Kg Rammer

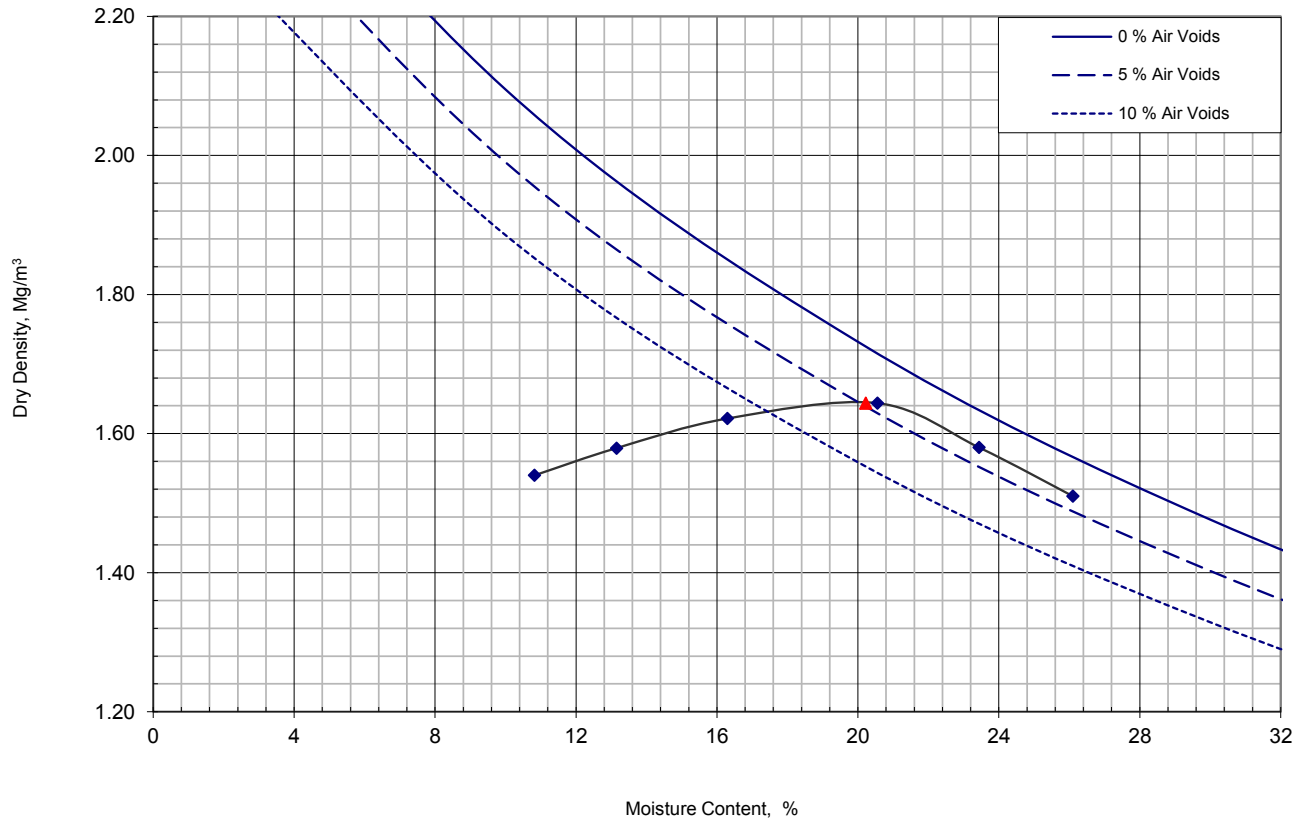
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet + 5% Lime

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5	6						
Moisture Content	11	13	16	21	23	26						
Bulk Density	1.71	1.79	1.89	1.98	1.95	1.90						
Dry Density	1.54	1.58	1.62	1.64	1.58	1.51						

Initial Moisture Content	21	%
Maximum Dry Density	1.64	Mg/m3
Optimum Moisture Content	20	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	0	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No TP34

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 0.80

Compaction Method 2.5 Kg Rammer

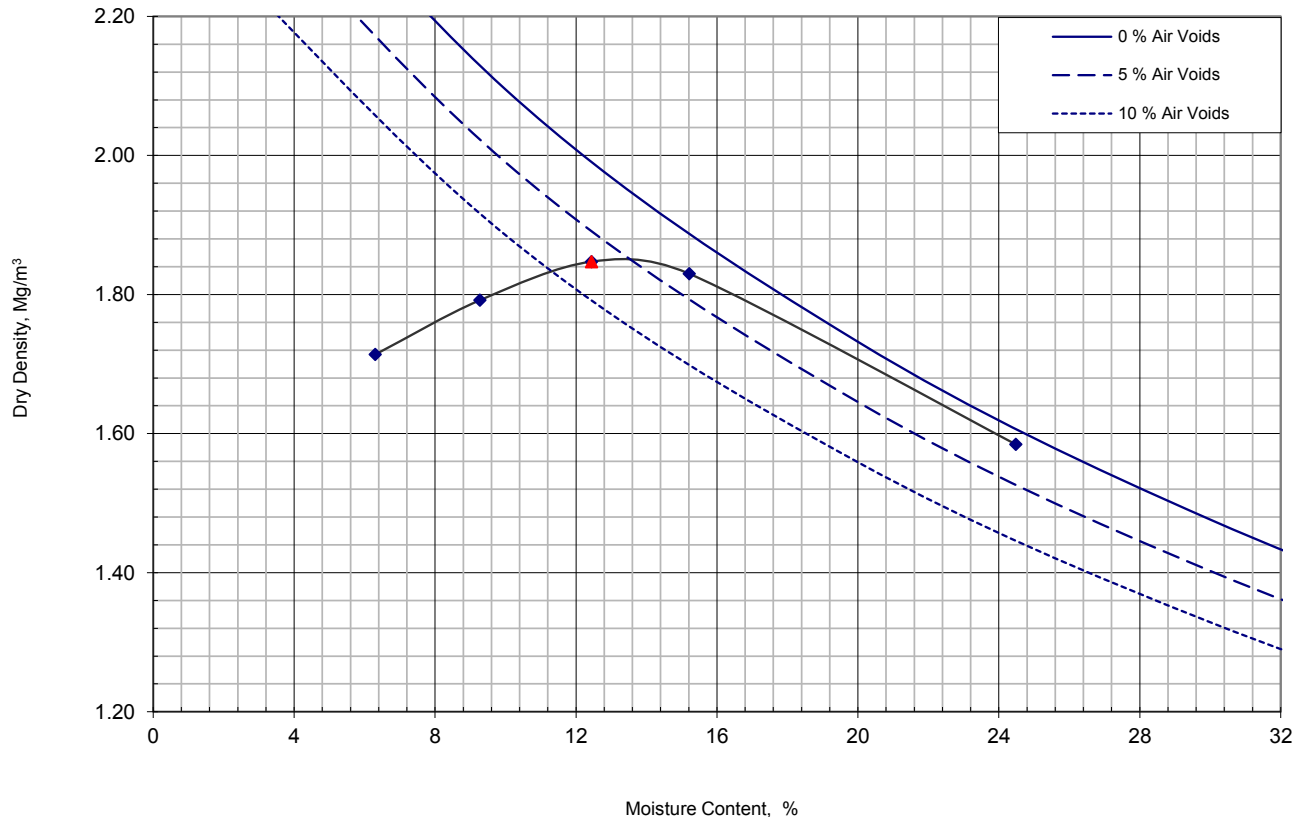
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	6.3	9.3	12	15	24							
Bulk Density	1.82	1.96	2.08	2.11	1.97							
Dry Density	1.71	1.79	1.85	1.83	1.58							

Initial Moisture Content	24	%
Maximum Dry Density	1.85	Mg/m3
Optimum Moisture Content	12	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	0	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No TP39

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 0.70

Compaction Method 2.5 Kg Rammer

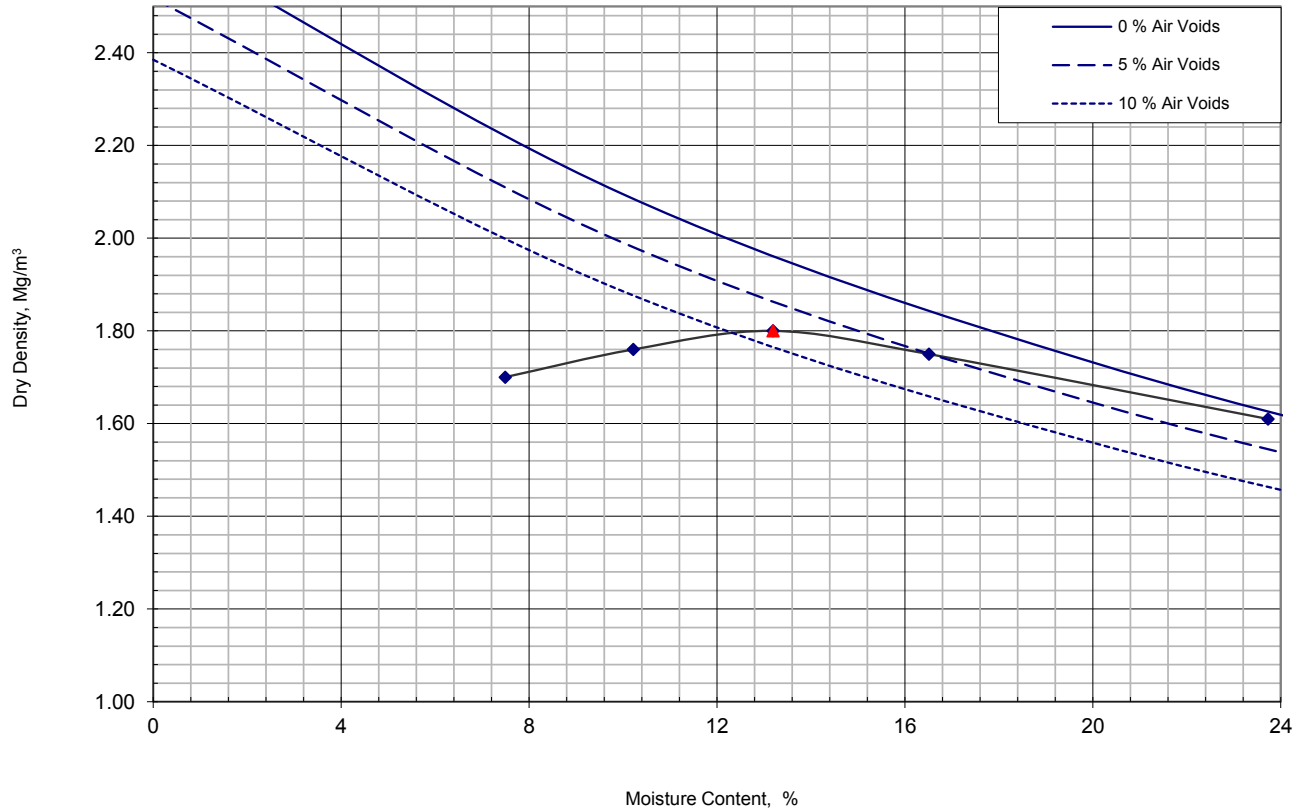
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	7.5	10	13	17	24							
Bulk Density	1.83	1.94	2.04	2.04	1.99							
Dry Density	1.70	1.76	1.80	1.75	1.61							

Initial Moisture Content	24	%
Maximum Dry Density	1.80	Mg/m3
Optimum Moisture Content	13	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	0	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No TP40

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 0.60

Compaction Method 2.5 Kg Rammer

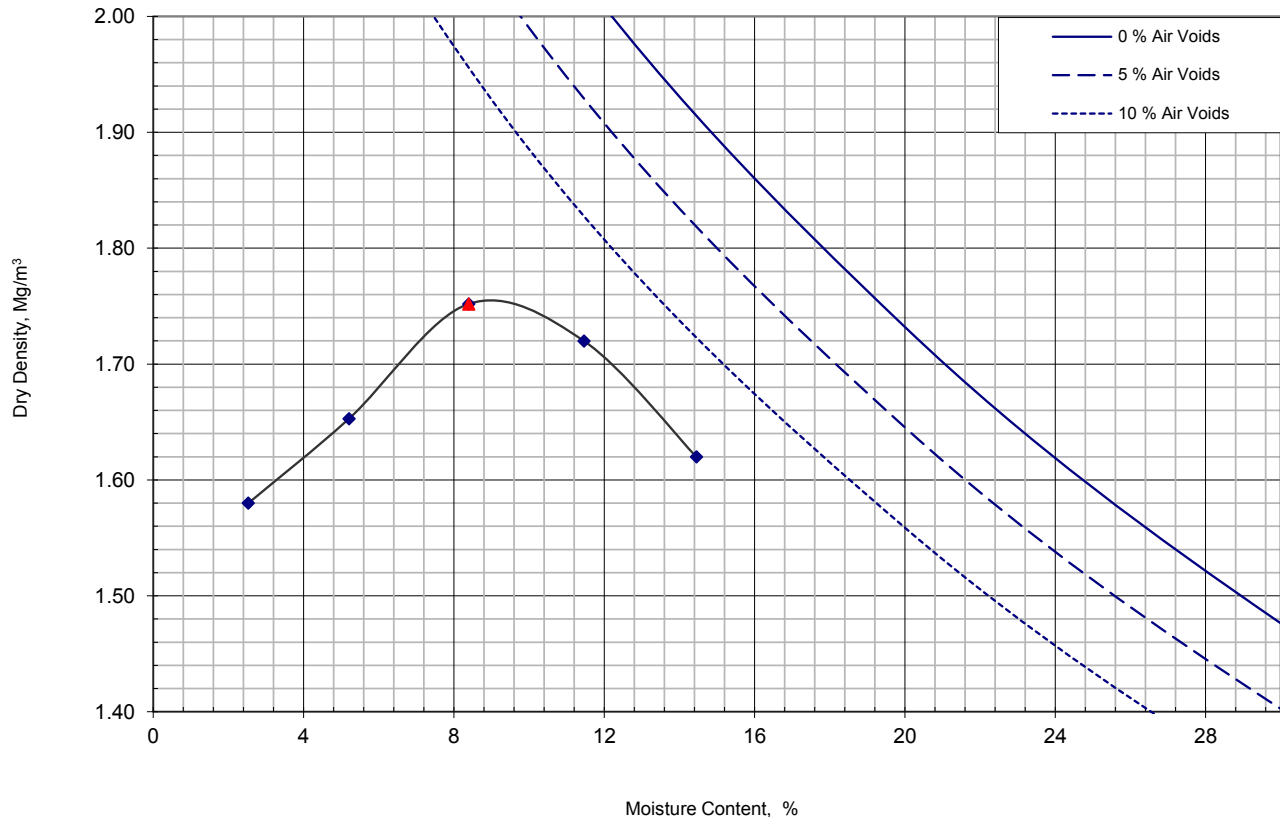
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet + 5% Lime

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	2.5	5.2	8.4	11	14							
Bulk Density	1.62	1.74	1.90	1.92	1.85							
Dry Density	1.58	1.65	1.75	1.72	1.62							

Initial Moisture Content	8.4	%
Maximum Dry Density	1.75	Mg/m3
Optimum Moisture Content	8.4	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	0	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No TP41

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 0.40

Compaction Method 2.5 Kg Rammer

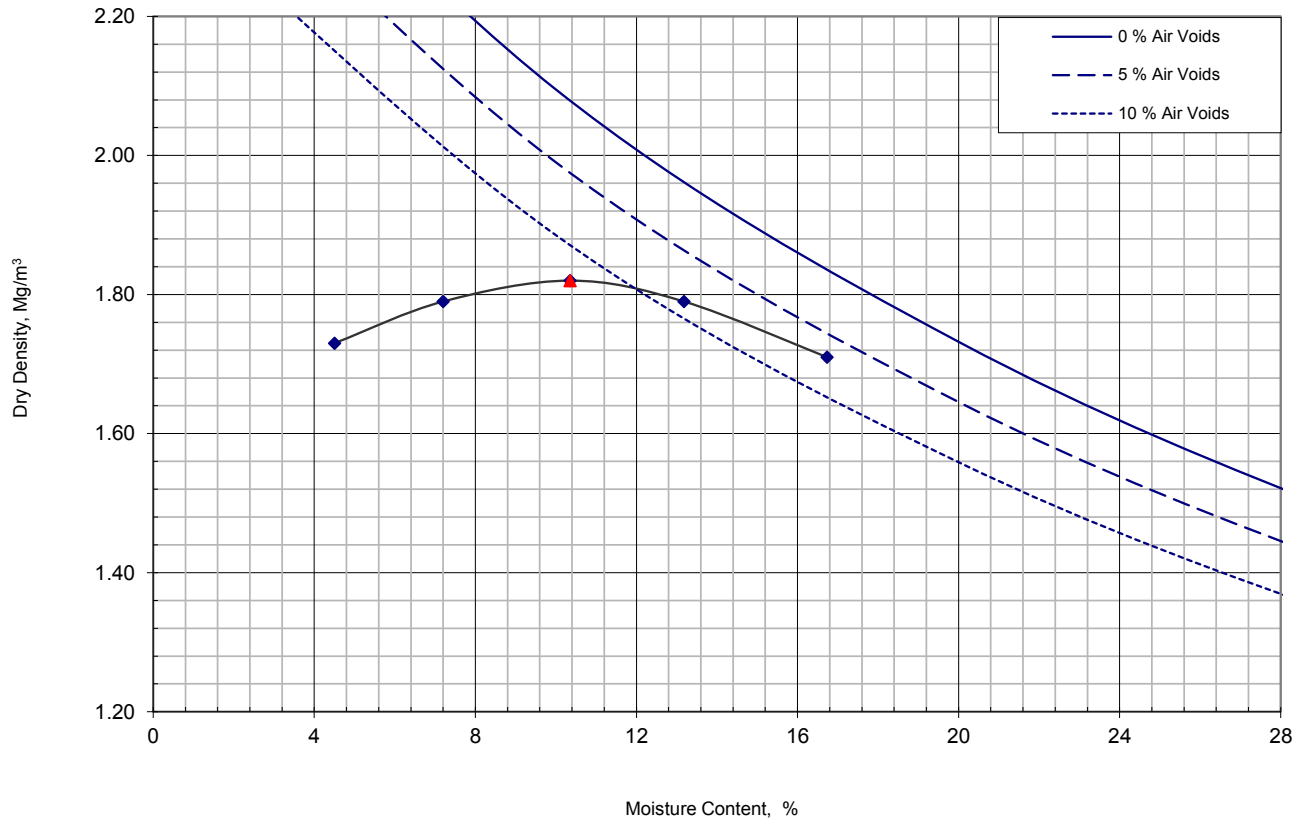
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	4.5	7.2	10	13	17							
Bulk Density	1.81	1.92	2.01	2.03	2.00							
Dry Density	1.73	1.79	1.82	1.79	1.71							

Initial Moisture Content	17	%
Maximum Dry Density	1.82	Mg/m3
Optimum Moisture Content	10	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	0	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No TP43

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 0.60

Compaction Method 2.5 Kg Rammer

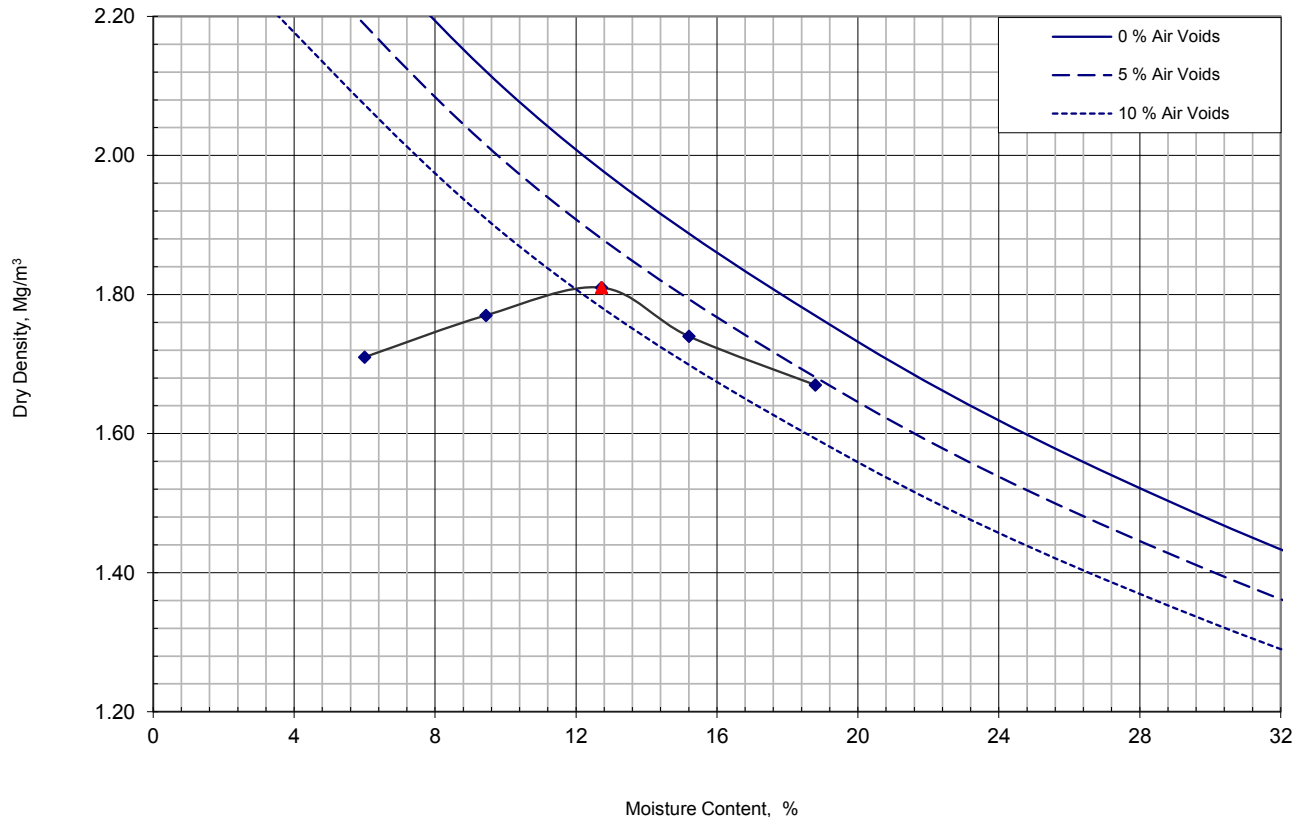
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	6.0	9.4	13	15	19							
Bulk Density	1.81	1.94	2.04	2.00	1.98							
Dry Density	1.71	1.77	1.81	1.74	1.67							

Initial Moisture Content	13	%
Maximum Dry Density	1.81	Mg/m3
Optimum Moisture Content	13	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	0	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No TP44

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 0.80

Compaction Method 2.5 Kg Rammer

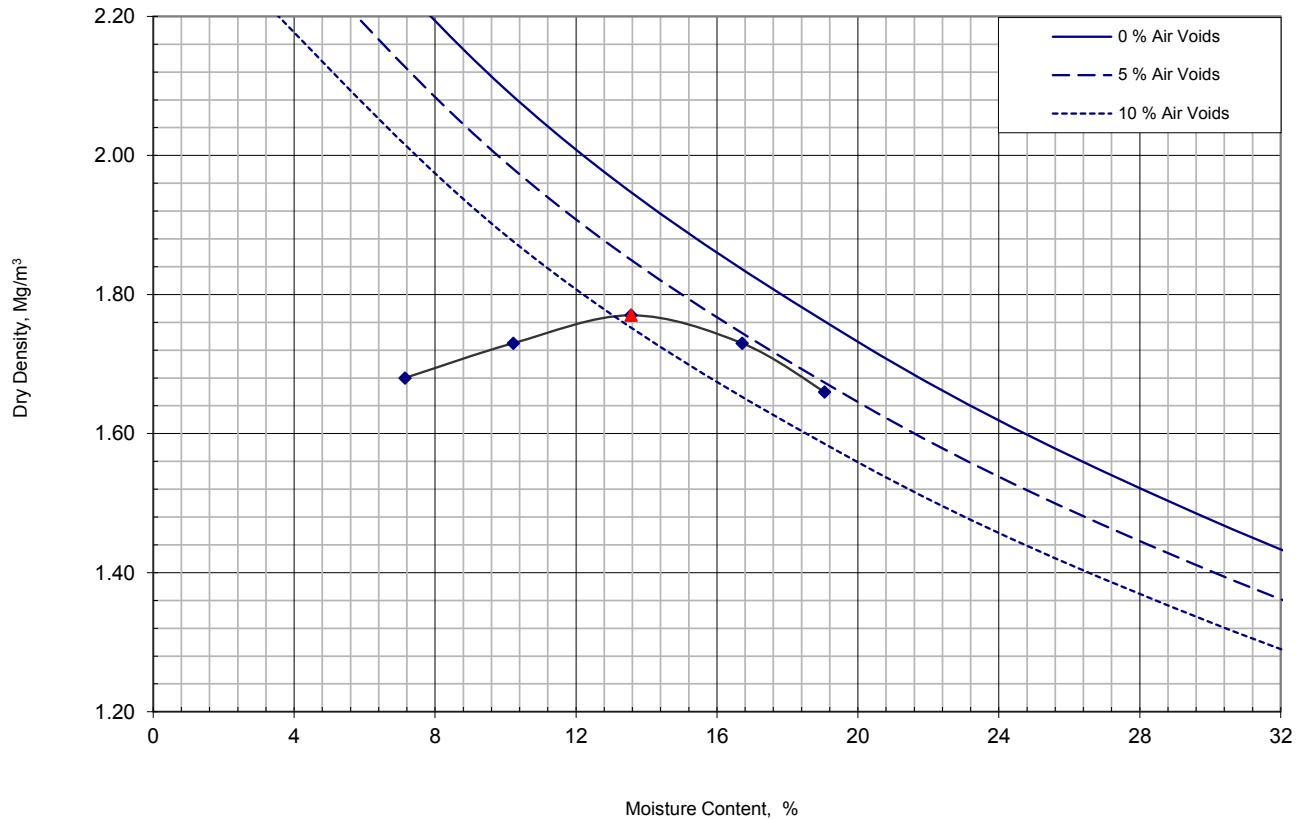
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	7.1	10	14	17	19							
Bulk Density	1.80	1.91	2.01	2.02	1.98							
Dry Density	1.68	1.73	1.77	1.73	1.66							

Initial Moisture Content	14	%
Maximum Dry Density	1.77	Mg/m3
Optimum Moisture Content	14	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	2	%

Operator

Conor

**Dry Density / Moisture Content Relationship
BS 1377:Part 4:1990**

Contract Number 62358

Borehole / Pit No TP45

Project Name Horton Heath

Sample No 2

Date Tested 23/11/2022

Depth Top 0.50

Compaction Method 2.5 Kg Rammer

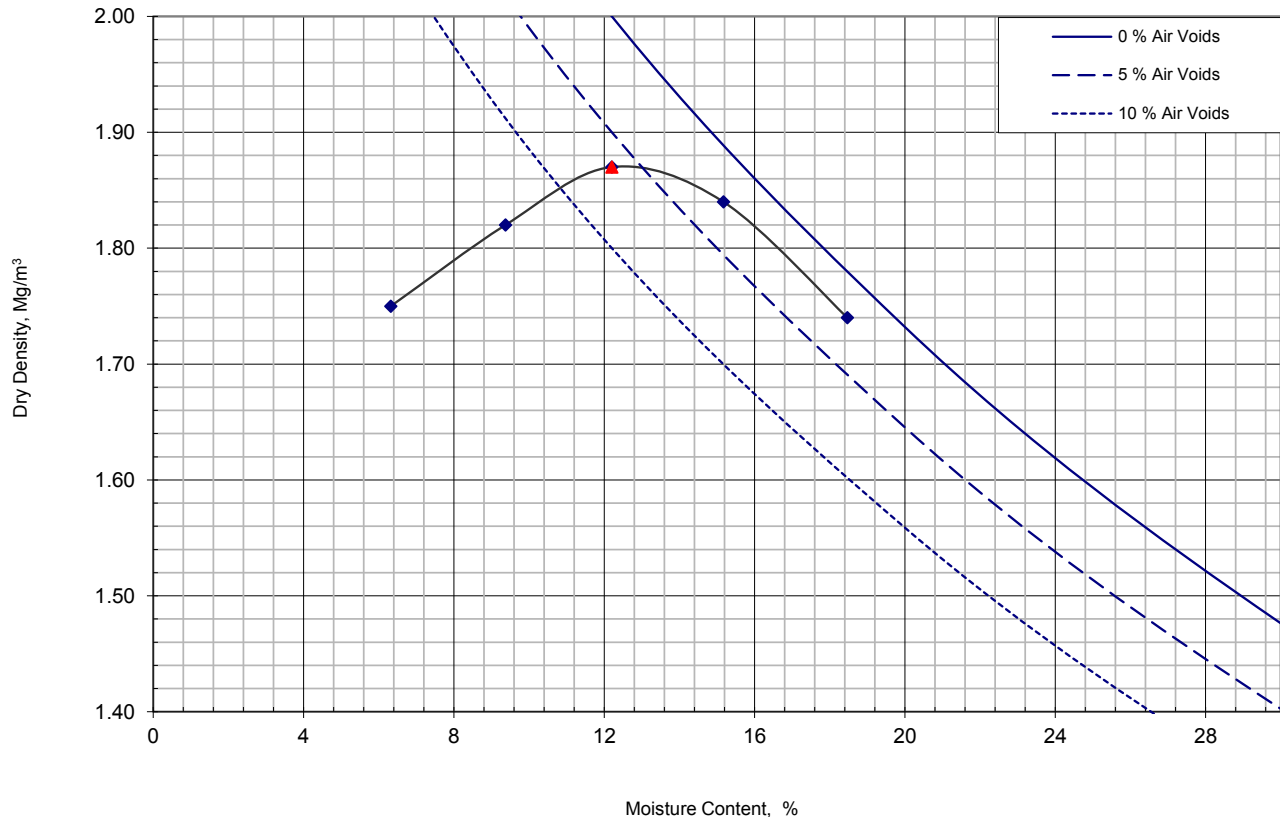
Depth Base

Compaction Clause BS1377:Part 4:1990, Clause 3.3

Sample Type B

Sample Description *See Sample Description Sheet + 5% Lime

Single or Separate Sample Used Single



Compaction Point	1	2	3	4	5							
Moisture Content	6.3	9.4	12	15	18							
Bulk Density	1.86	1.99	2.10	2.12	2.06							
Dry Density	1.75	1.82	1.87	1.84	1.74							

Initial Moisture Content	18	%
Maximum Dry Density	1.87	Mg/m3
Optimum Moisture Content	12	%
Particle Density	2.65 Assumed	Mg/m3
Material Retained 37.5mm	0	%
Material Retained 20mm	4	%

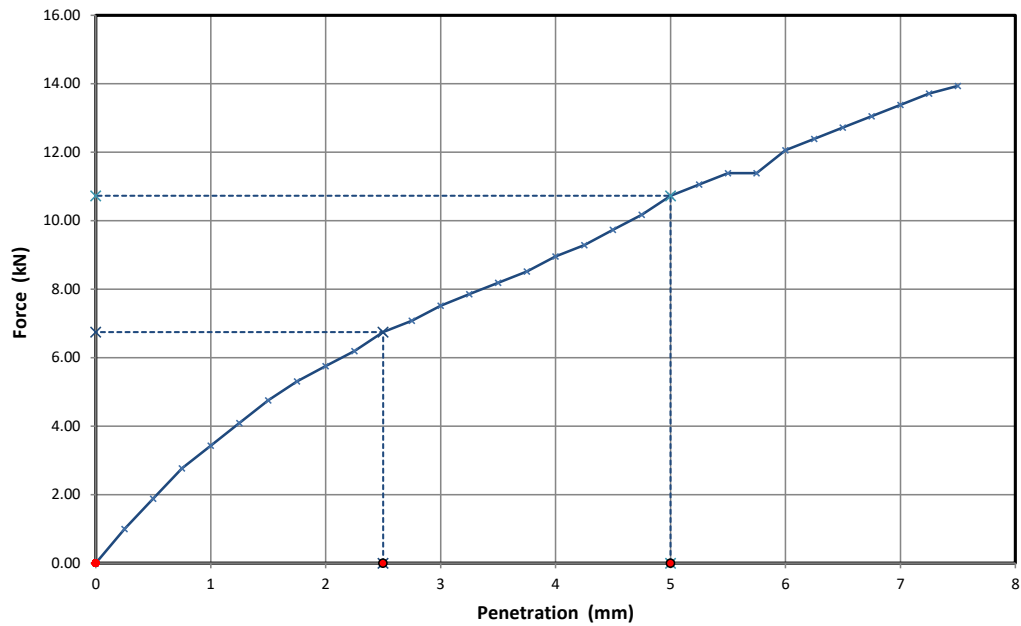
Operator

Conor



**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number	62358	Project Name	Horton Heath	Borehole/Pit No.	SA01
Sample No.	2	Soil Description	*See Sample Description Sheet	Depth Top	2.00
Depth Base		Compaction Method	2.5 Kg Rammer	Depth Base	
Sample Type	B	Retained 20mm (%)	0	Sample Type	B
		Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	16
Moisture Top (%)	16
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.94
Dry Density (Mg/m3)	1.67

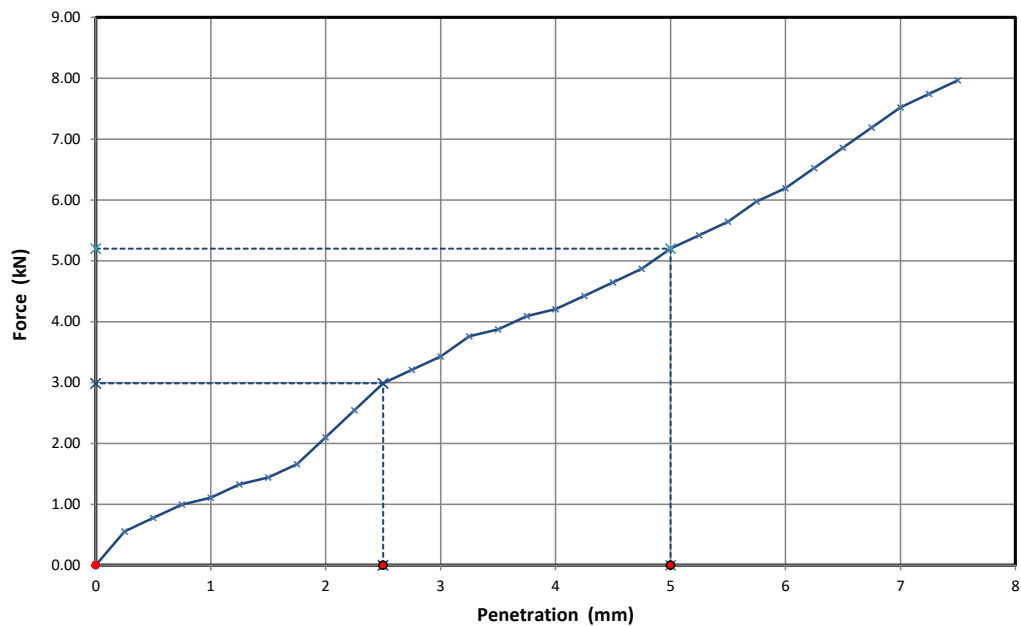
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	5 % Lime

CBR Test Values			
2.5mm Top	51.000	2.5mm Bottom	
5mm Top	54	5mm Bottom	
CBR Value %	54	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	SA03
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	1.50
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	14
Moisture Top (%)	14
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.00
Dry Density (Mg/m3)	1.76

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	23.000	2.5mm Bottom	
5mm Top	26	5mm Bottom	
CBR Value %	26	CBR Value %	

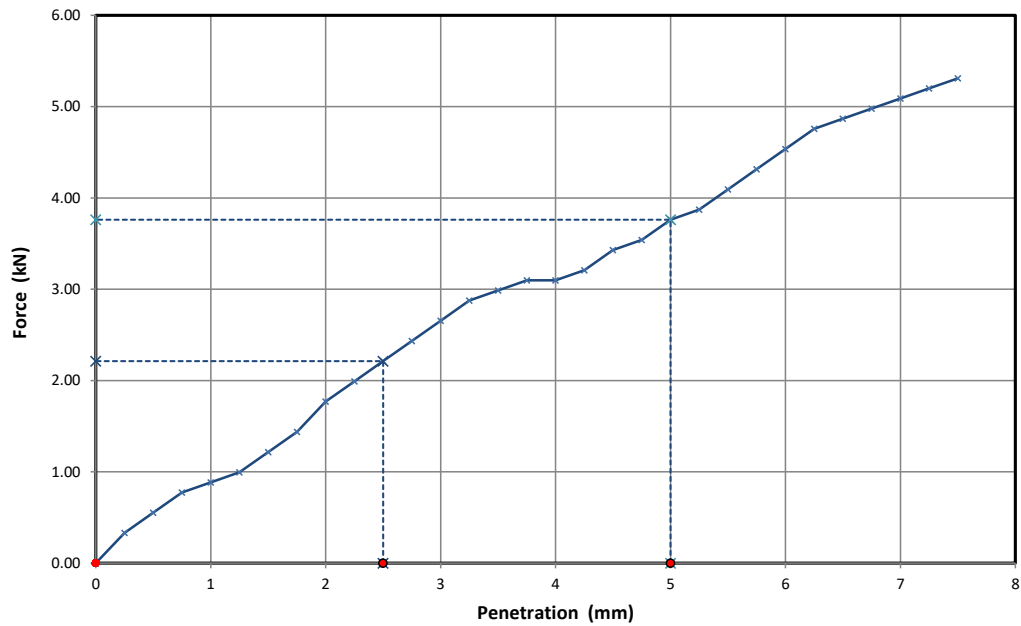
Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number	62358	Project Name	Horton Heath	Borehole/Pit No.	SA04
Sample No.	2	Soil Description	*See Sample Description Sheet	Depth Top	0.30
Depth Base		Compaction Method	2.5 Kg Rammer	Depth Base	
Sample Type	B	Retained 20mm (%)	15	Sample Type	B
		Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	13
Moisture Top (%)	13
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.99
Dry Density (Mg/m3)	1.77

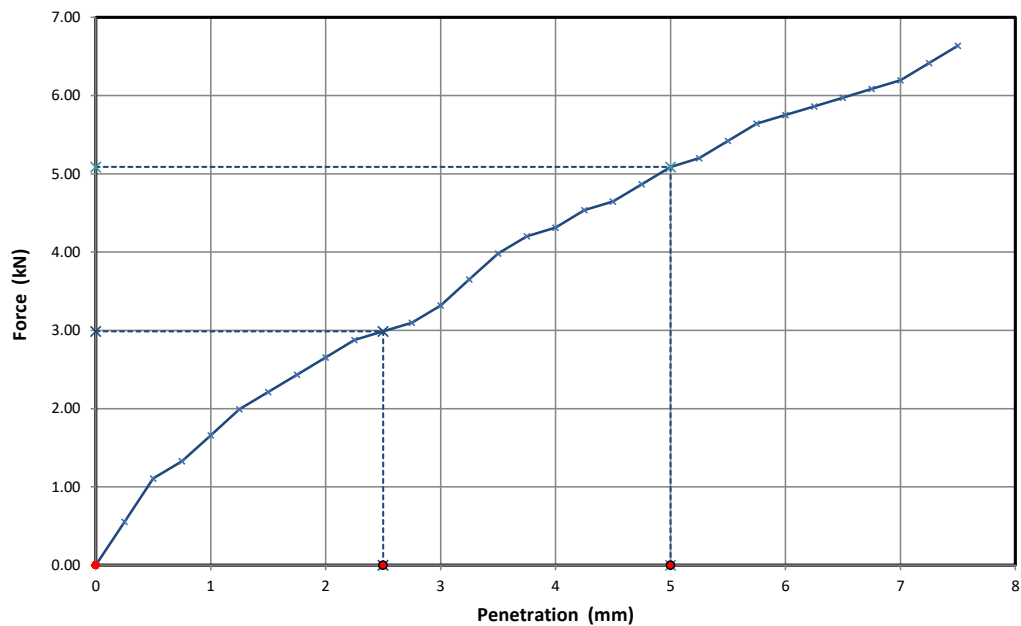
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	17.000	2.5mm Bottom	
5mm Top	19	5mm Bottom	
CBR Value %	19	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	SA05
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	1.50
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	14
Moisture Top (%)	14
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.09
Dry Density (Mg/m3)	1.84

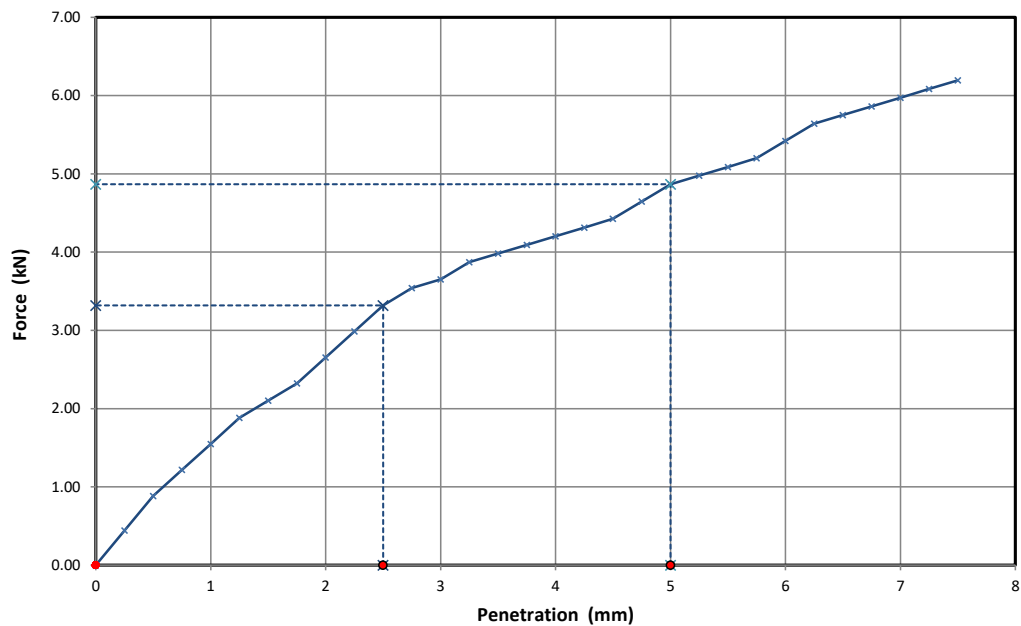
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	23.000	2.5mm Bottom	
5mm Top	25	5mm Bottom	
CBR Value %	25	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	SA07
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	1.70
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	13
Moisture Top (%)	14
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.05
Dry Density (Mg/m3)	1.81

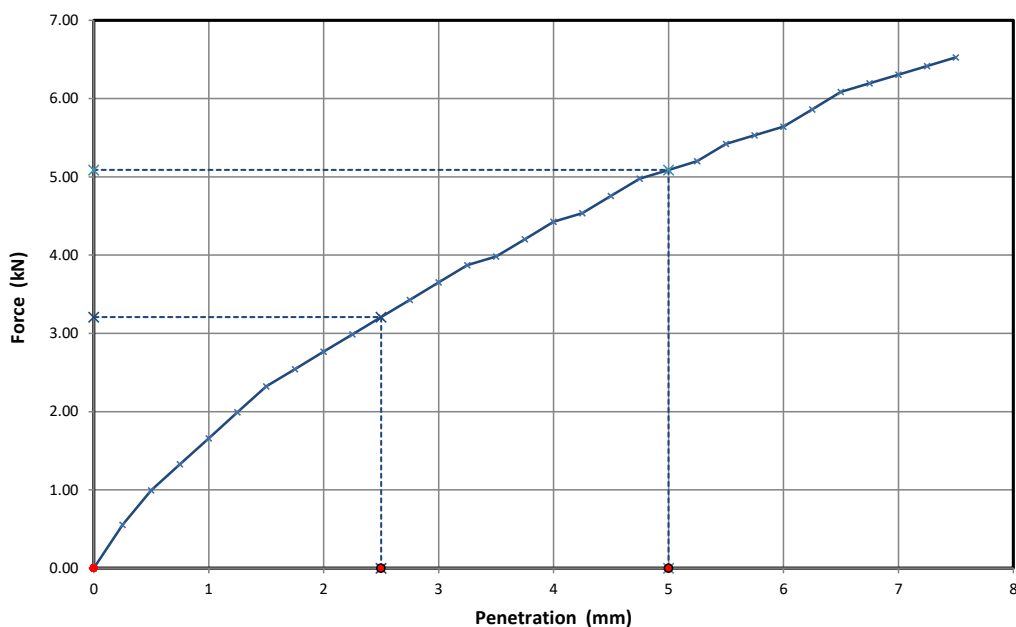
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	25.000	2.5mm Bottom	
5mm Top	24	5mm Bottom	
CBR Value %	25	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	SA08
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	1.20
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	14
Moisture Top (%)	14
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.07
Dry Density (Mg/m3)	1.82

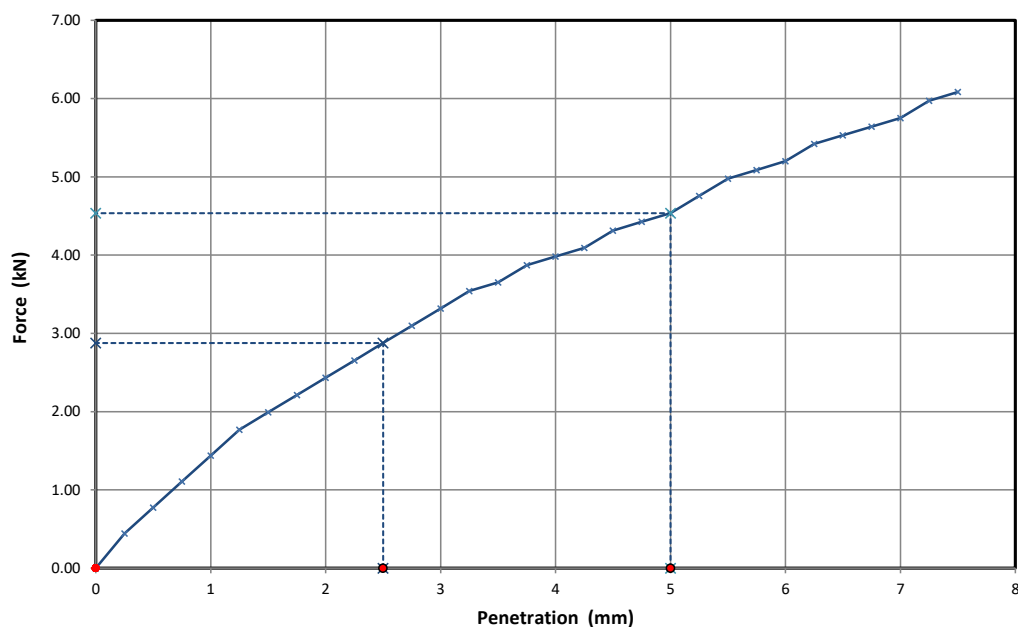
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	24.000	2.5mm Bottom	
5mm Top	25	5mm Bottom	
CBR Value %	25	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	SA09
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	1.30
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	13
Moisture Top (%)	13
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.06
Dry Density (Mg/m3)	1.83

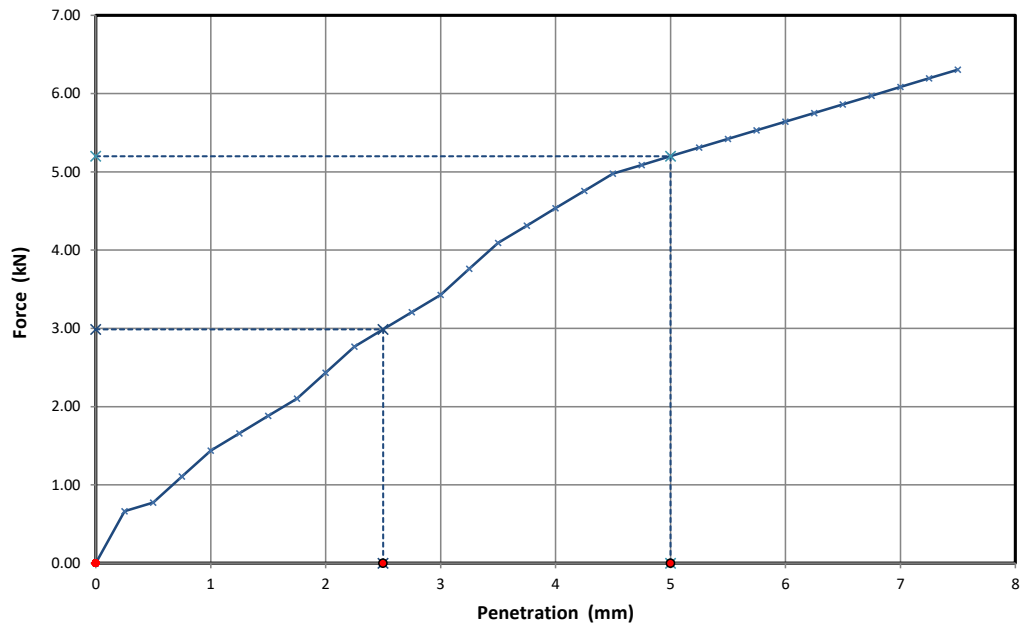
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	22.000	2.5mm Bottom	
5mm Top	23	5mm Bottom	
CBR Value %	23	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	SA11
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	21
Moisture Top (%)	21
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.95
Dry Density (Mg/m3)	1.61

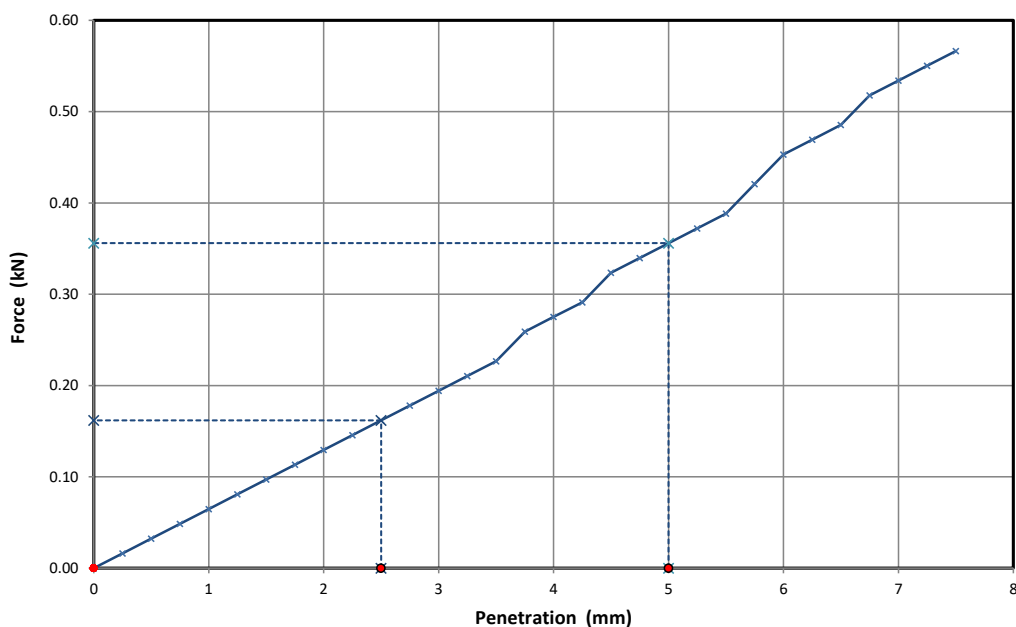
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	5 % Lime

CBR Test Values			
2.5mm Top	23.000	2.5mm Bottom	
5mm Top	26	5mm Bottom	
CBR Value %	26	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP01
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	25
Moisture Top (%)	28
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.87
Dry Density (Mg/m3)	1.50

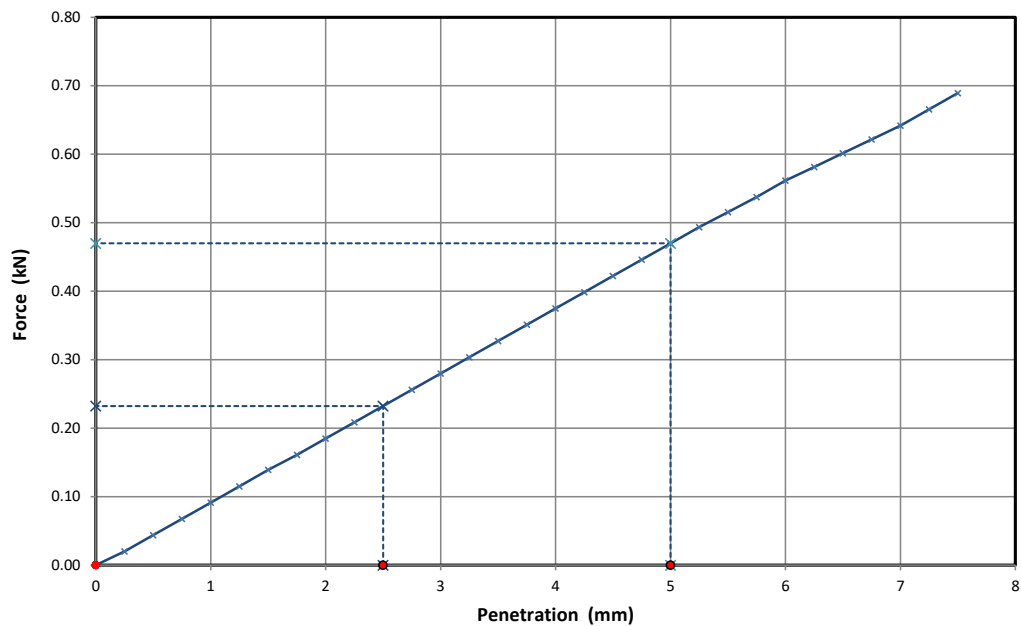
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.98
Remarks	

CBR Test Values			
2.5mm Top	1.200	2.5mm Bottom	
5mm Top	1.8	5mm Bottom	
CBR Value %	1.8	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP02
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	23
Moisture Top (%)	27
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.98
Dry Density (Mg/m3)	1.60

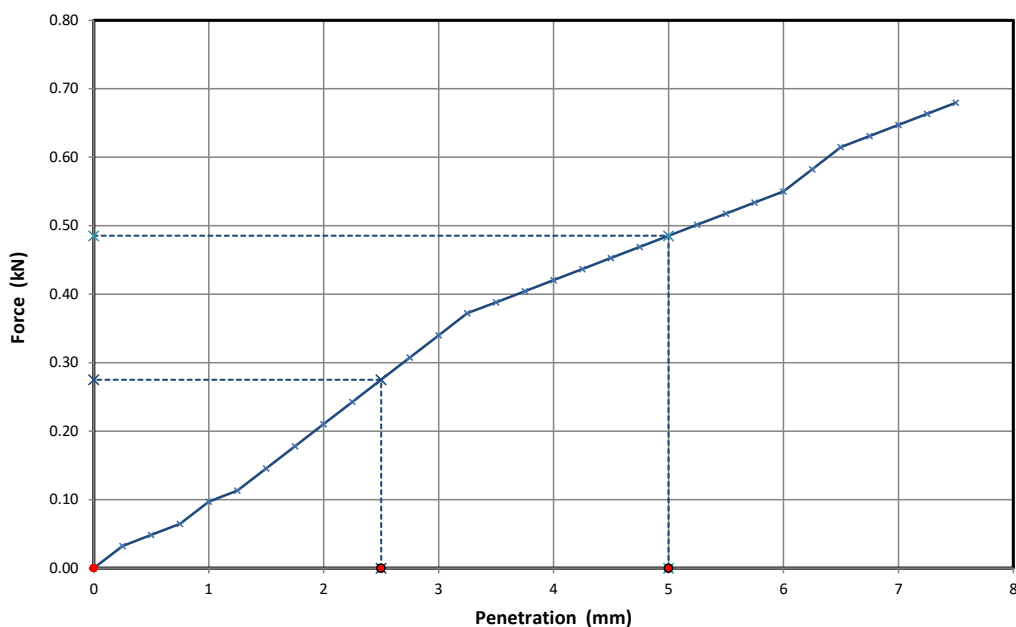
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.65
Remarks	

CBR Test Values			
2.5mm Top	1.800	2.5mm Bottom	
5mm Top	2.4	5mm Bottom	
CBR Value %	2.4	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP03
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	30
Moisture Top (%)	29
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.90
Dry Density (Mg/m3)	1.46

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.8
Remarks	

CBR Test Values			
2.5mm Top	2.100	2.5mm Bottom	
5mm Top	2.4	5mm Bottom	
CBR Value %	2.4	CBR Value %	

Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number 62358

Borehole/Pit No. TP04

Project Name Horton Heath

Sample No. 1

Soil Description *See Sample Description Sheet

Depth Top 1.00

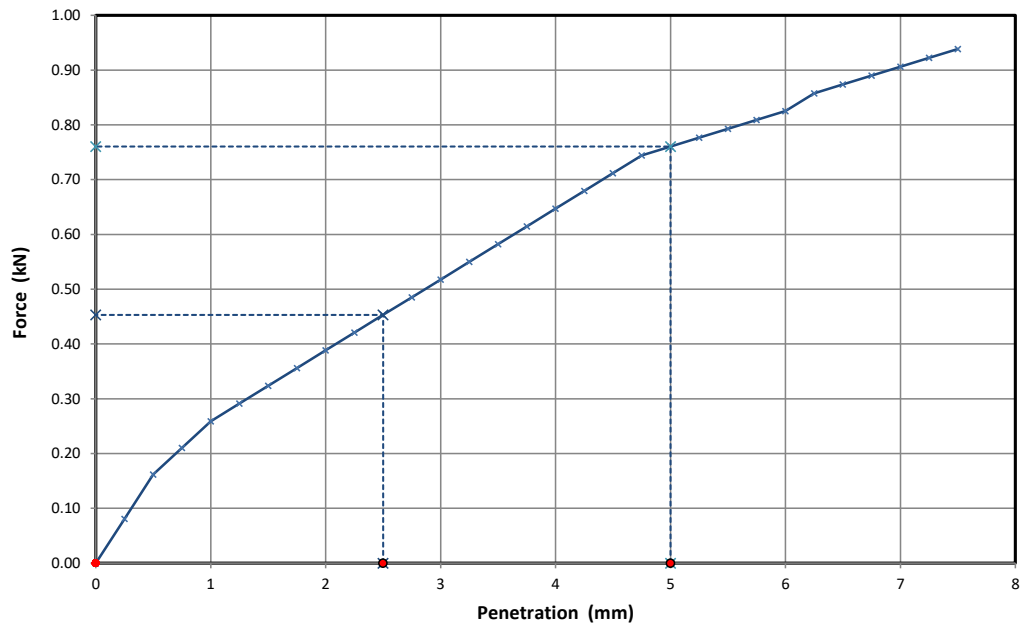
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 21/11/2022



Initial Sample Conditions	
Moisture Content (%)	19
Moisture Top (%)	22
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.01
Dry Density (Mg/m3)	1.69

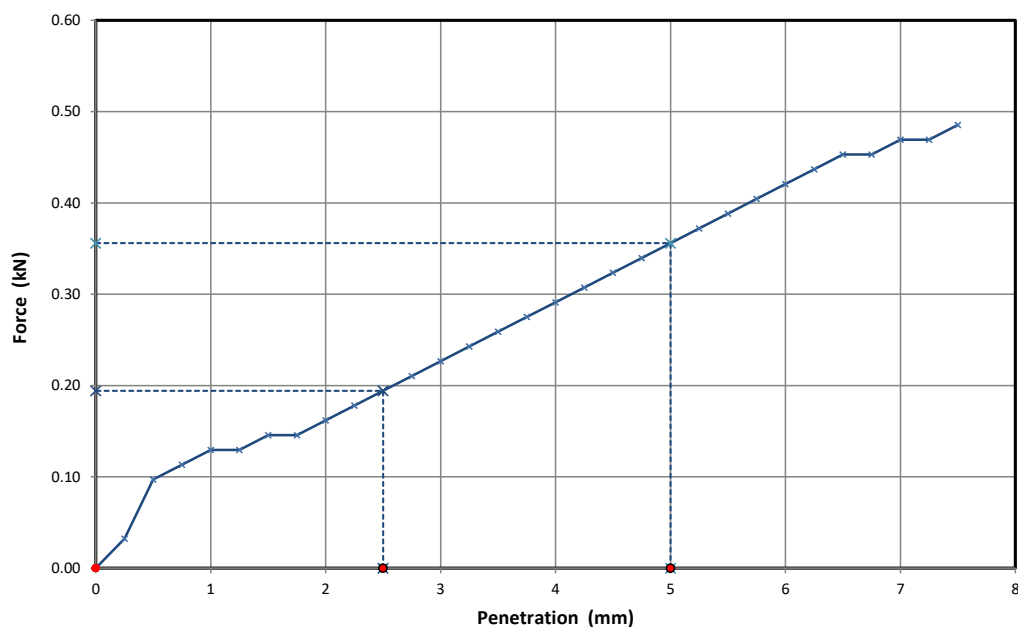
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.69
Remarks	

CBR Test Values			
2.5mm Top	3.400	2.5mm Bottom	
5mm Top	3.8	5mm Bottom	
CBR Value %	3.8	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP05
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	30
Moisture Top (%)	28
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.91
Dry Density (Mg/m3)	1.47

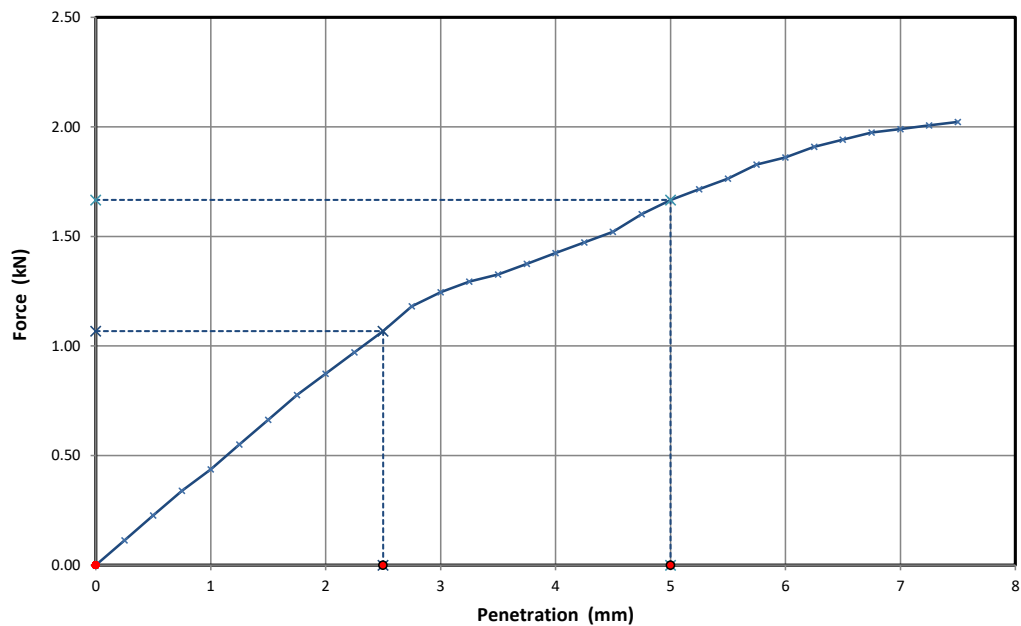
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.13
Remarks	

CBR Test Values			
2.5mm Top	1.500	2.5mm Bottom	
5mm Top	1.8	5mm Bottom	
CBR Value %	1.8	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP06
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	17
Moisture Top (%)	22
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.05
Dry Density (Mg/m3)	1.75

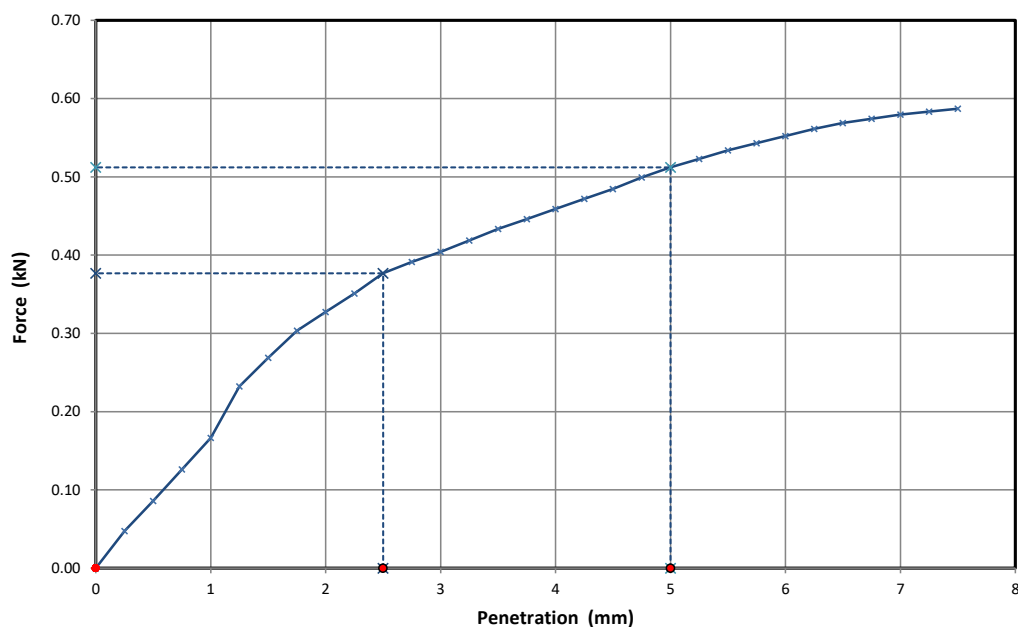
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.29
Remarks	

CBR Test Values			
2.5mm Top	8.100	2.5mm Bottom	
5mm Top	8.3	5mm Bottom	
CBR Value %	8.3	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP07
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	29
Moisture Top (%)	30
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.97
Dry Density (Mg/m3)	1.53

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.75
Remarks	

CBR Test Values			
2.5mm Top	2.900	2.5mm Bottom	
5mm Top	2.6	5mm Bottom	
CBR Value %	2.9	CBR Value %	

Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number 62358

Borehole/Pit No. TP08

Project Name Horton Heath

Sample No. 1

Soil Description *See Sample Description Sheet

Depth Top 1.00

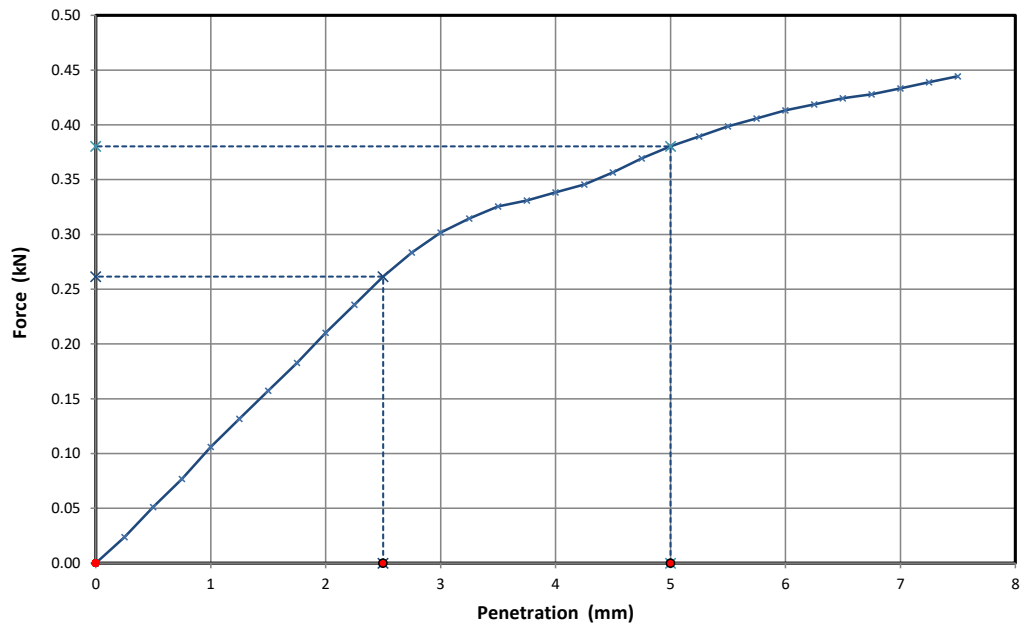
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 21/11/2022



Initial Sample Conditions	
Moisture Content (%)	26
Moisture Top (%)	27
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.97
Dry Density (Mg/m3)	1.57

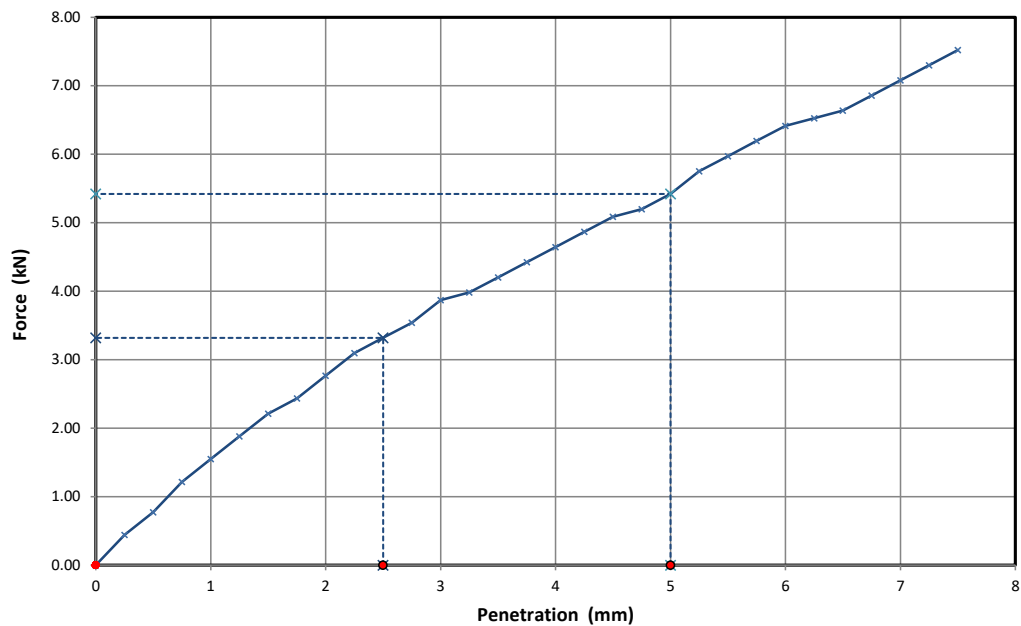
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.81
Remarks	

CBR Test Values			
2.5mm Top	2.000	2.5mm Bottom	
5mm Top	1.9	5mm Bottom	
CBR Value %	2	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP09
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	0.10
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	14	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	12
Moisture Top (%)	12
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.98
Dry Density (Mg/m3)	1.77

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	5 % Lime

CBR Test Values			
2.5mm Top	25.000	2.5mm Bottom	
5mm Top	27	5mm Bottom	
CBR Value %	27	CBR Value %	

Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number 62358

Borehole/Pit No. TP09

Project Name Horton Heath

Sample No. 1

Soil Description *See Sample Description Sheet

Depth Top 1.00

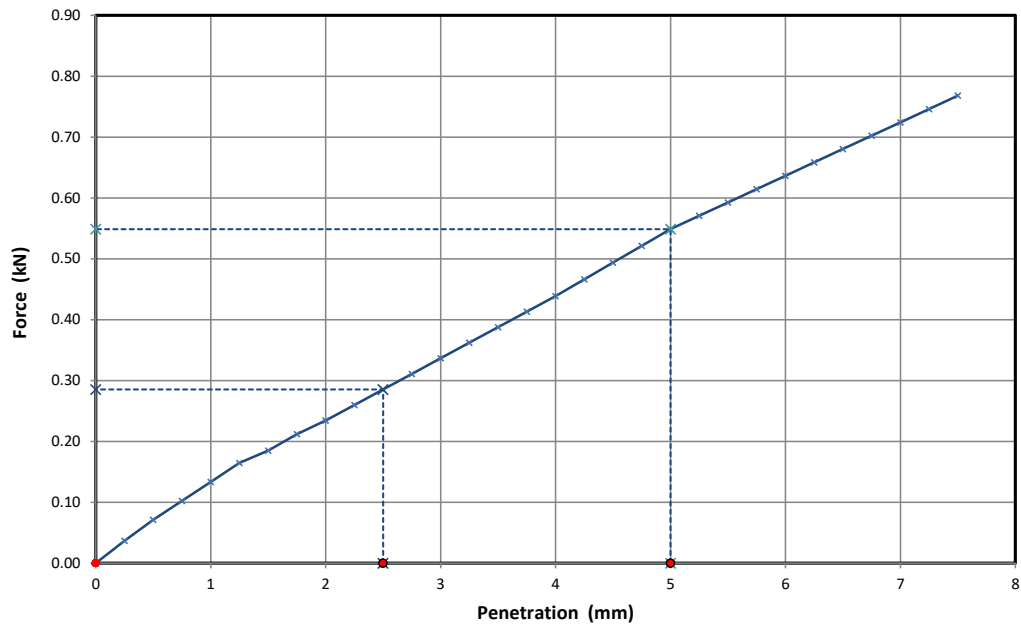
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 21/11/2022



Initial Sample Conditions	
Moisture Content (%)	26
Moisture Top (%)	32
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.86
Dry Density (Mg/m3)	1.48

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	1.14
Remarks	

CBR Test Values			
2.5mm Top	2.200	2.5mm Bottom	
5mm Top	2.7	5mm Bottom	
CBR Value %	2.7	CBR Value %	

Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number 62358

Borehole/Pit No. TP10

Project Name Horton Heath

Sample No. 1

Soil Description *See Sample Description Sheet

Depth Top 1.00

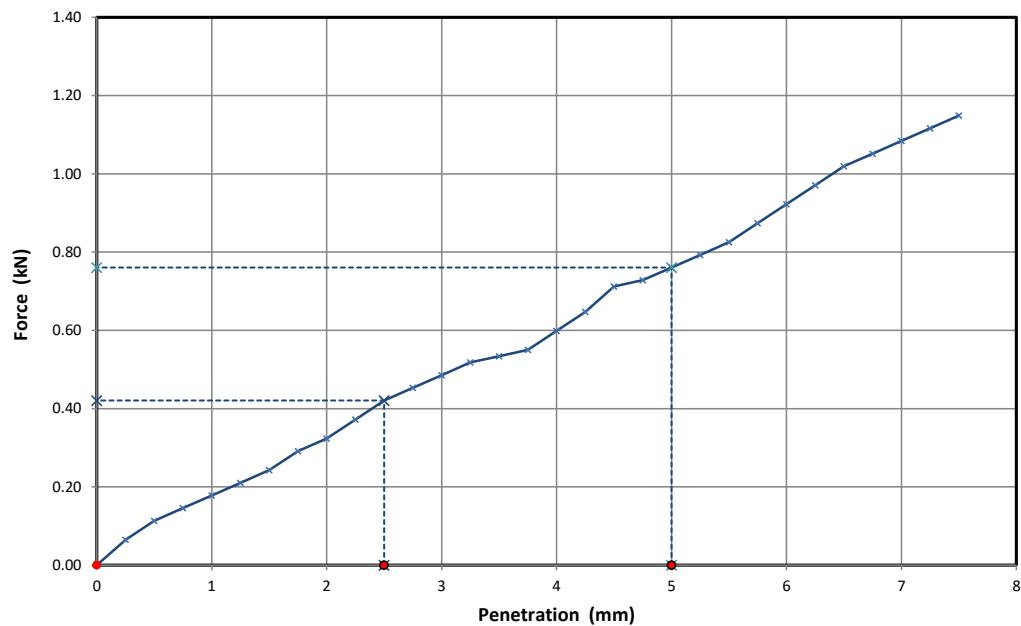
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 21/11/2022



Initial Sample Conditions	
Moisture Content (%)	23
Moisture Top (%)	25
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.98
Dry Density (Mg/m3)	1.61

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.55
Remarks	

CBR Test Values			
2.5mm Top	3.200	2.5mm Bottom	
5mm Top	3.8	5mm Bottom	
CBR Value %	3.8	CBR Value %	

Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number 62358

Borehole/Pit No. TP11

Project Name Horton Heath

Sample No.

Soil Description *See Sample Description Sheet

Depth Top 1.00

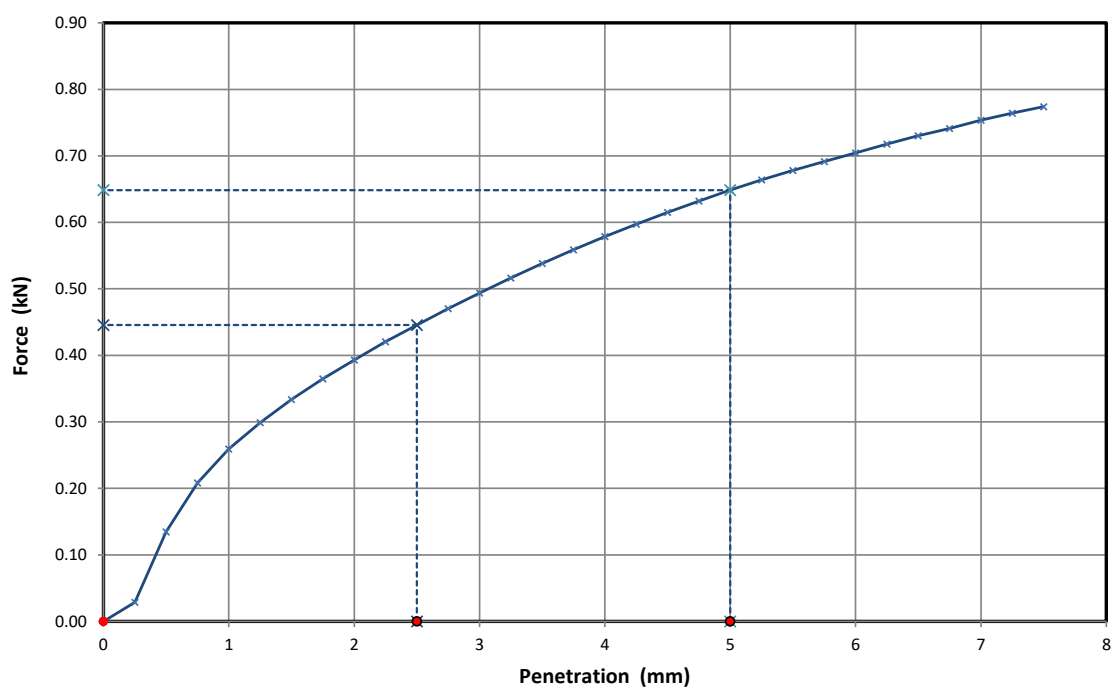
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 21/11/2022



Initial Sample Conditions	
Moisture Content (%)	25
Moisture Top (%)	25
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.97
Dry Density (Mg/m3)	1.57

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.21
Remarks	

CBR Test Values			
2.5mm Top	3.4	2.5mm Bottom	
5mm Top	3.2	5mm Bottom	
CBR Value %	3.4	CBR Value %	

Operator
Conal





California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7

Contract Number 62358

Borehole/Pit No. TP12

Project Name Horton Heath

Sample No.

Soil Description *See Sample Description Sheet

Depth Top 1.00

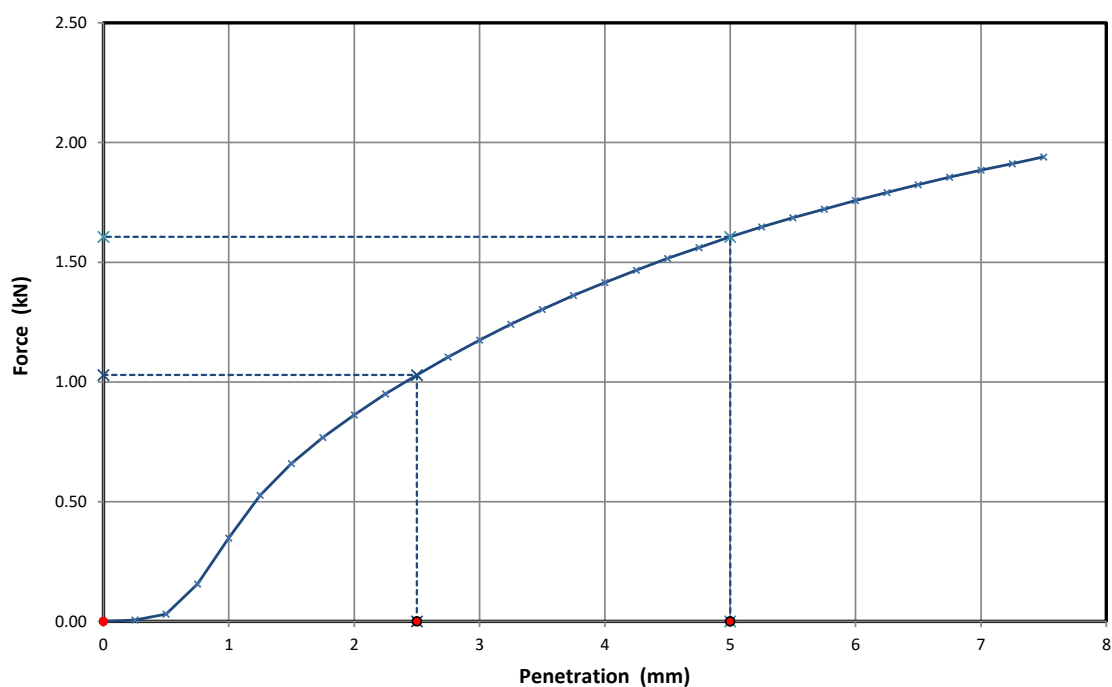
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 17/11/2022



Initial Sample Conditions	
Moisture Content (%)	16
Moisture Top (%)	22
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.03
Dry Density (Mg/m3)	1.75

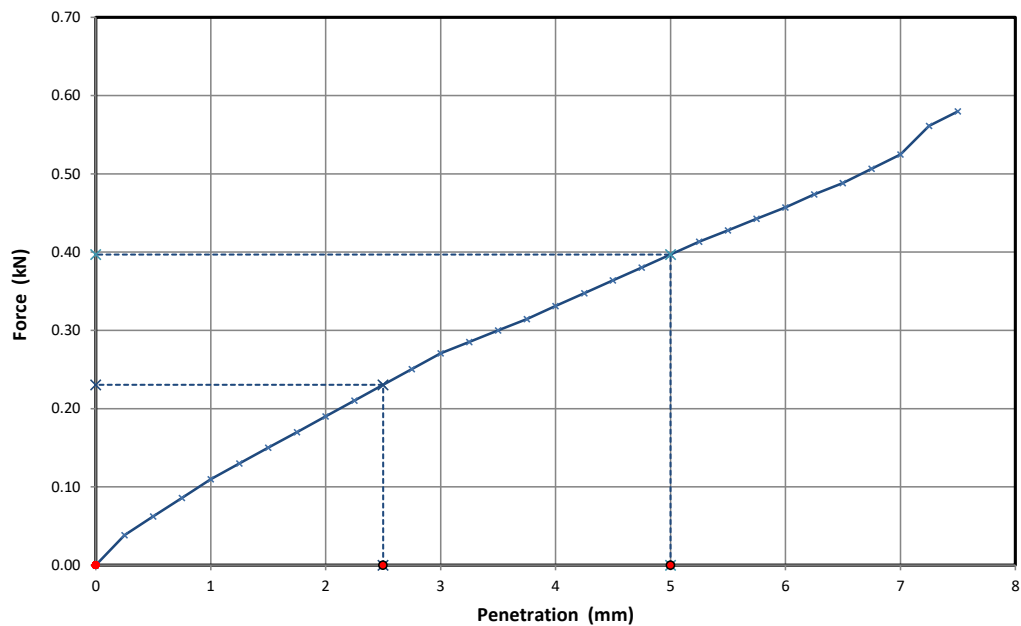
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.15
Remarks	

CBR Test Values			
2.5mm Top	7.8	2.5mm Bottom	
5mm Top	8	5mm Bottom	
CBR Value %	8	CBR Value %	

Operator
Conor



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP13
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	20
Moisture Top (%)	22
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.93
Dry Density (Mg/m3)	1.61

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.45
Remarks	

CBR Test Values			
2.5mm Top	1.700	2.5mm Bottom	
5mm Top	2	5mm Bottom	
CBR Value %	2	CBR Value %	

Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number 62358

Borehole/Pit No. TP14

Project Name Horton Heath

Sample No.

Soil Description *See Sample Description Sheet

Depth Top 1.00

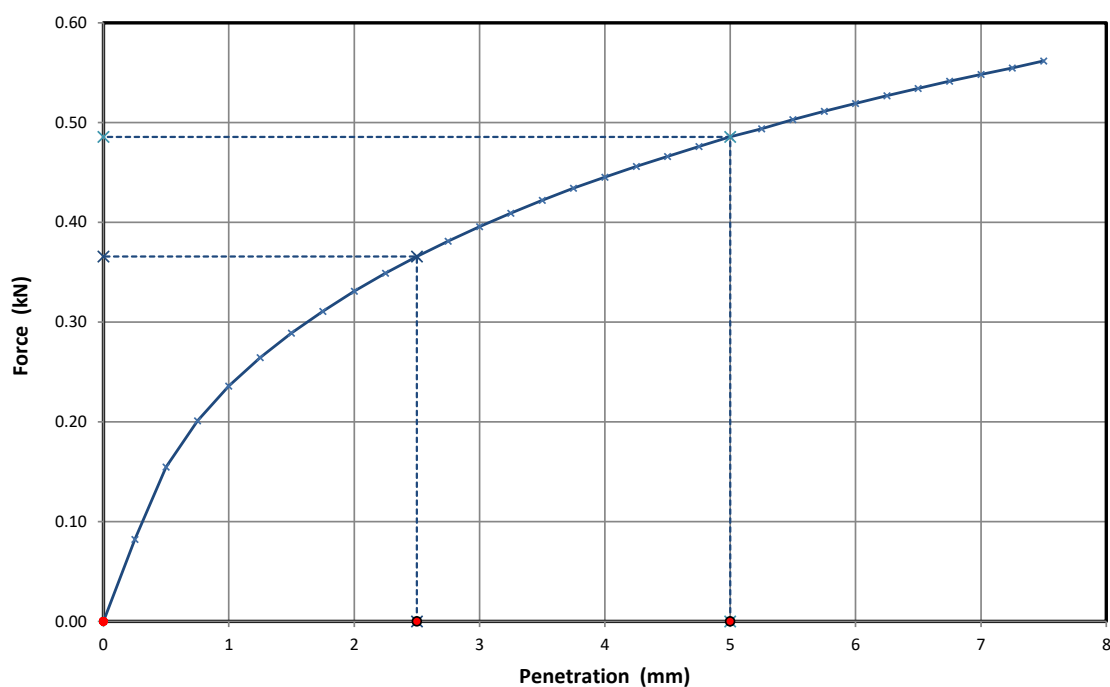
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 21/11/2022



Initial Sample Conditions	
Moisture Content (%)	26
Moisture Top (%)	29
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.98
Dry Density (Mg/m3)	1.56

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.87
Remarks	

CBR Test Values			
2.5mm Top	2.8	2.5mm Bottom	
5mm Top	2.4	5mm Bottom	
CBR Value %	2.8	CBR Value %	

Operator
Conal





California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7

Contract Number 62358

Borehole/Pit No. TP15

Project Name Horton Heath

Sample No.

Soil Description *See Sample Description Sheet

Depth Top 1.00

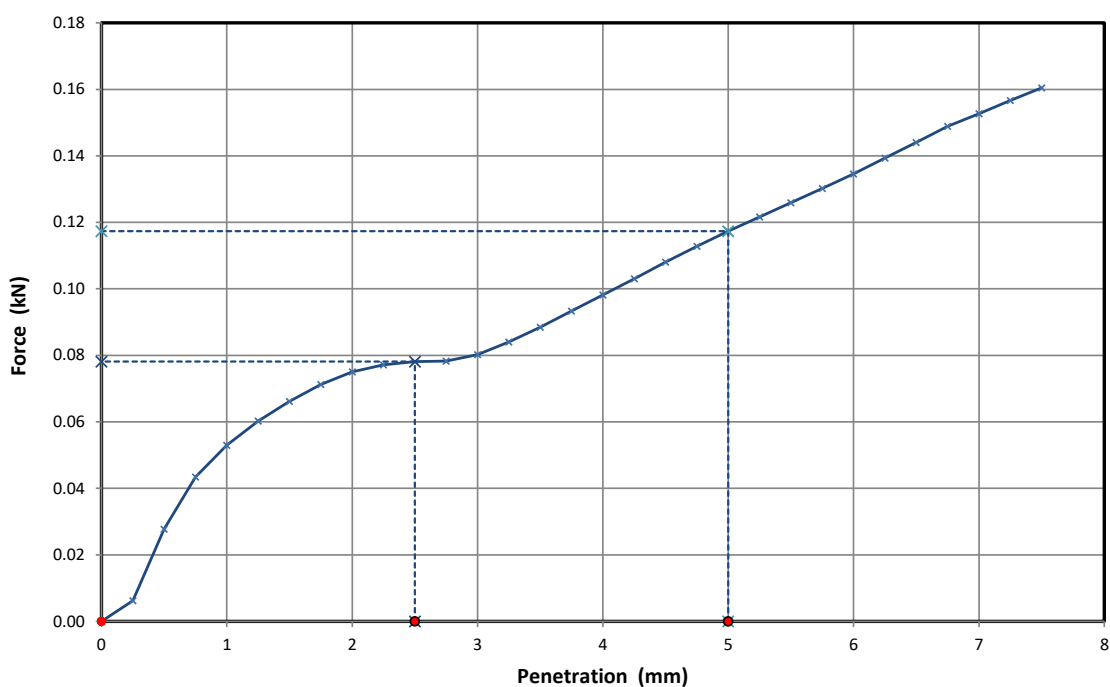
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 17/11/2022



Initial Sample Conditions	
Moisture Content (%)	33
Moisture Top (%)	39
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.84
Dry Density (Mg/m3)	1.39

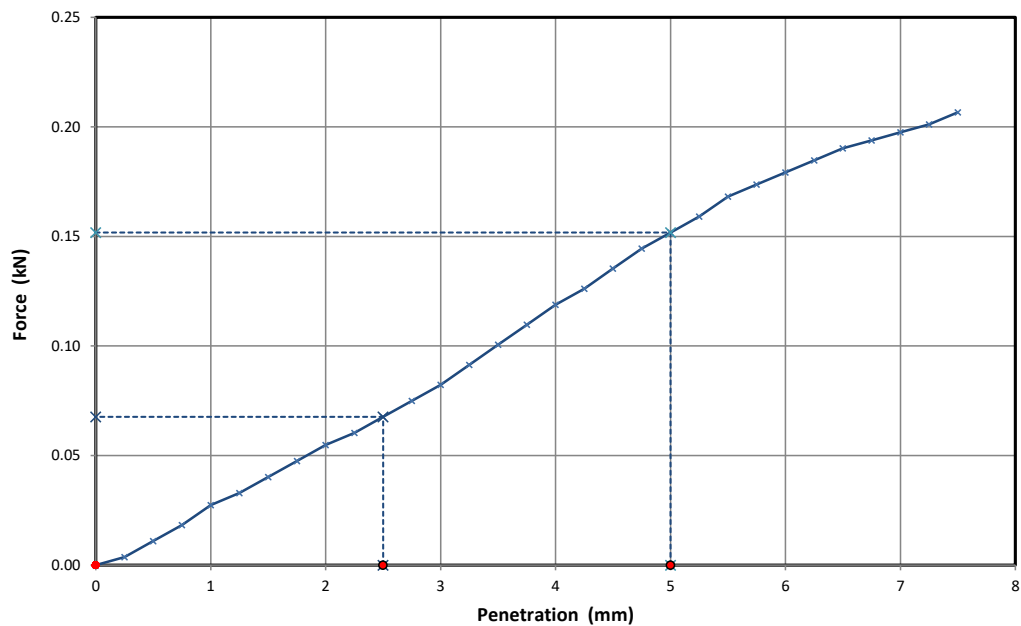
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.49
Remarks	

CBR Test Values			
2.5mm Top	0.59	2.5mm Bottom	
5mm Top	0.59	5mm Bottom	
CBR Value %	0.59	CBR Value %	

Operator
Conor



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP16
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	24
Moisture Top (%)	27
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.98
Dry Density (Mg/m3)	1.59

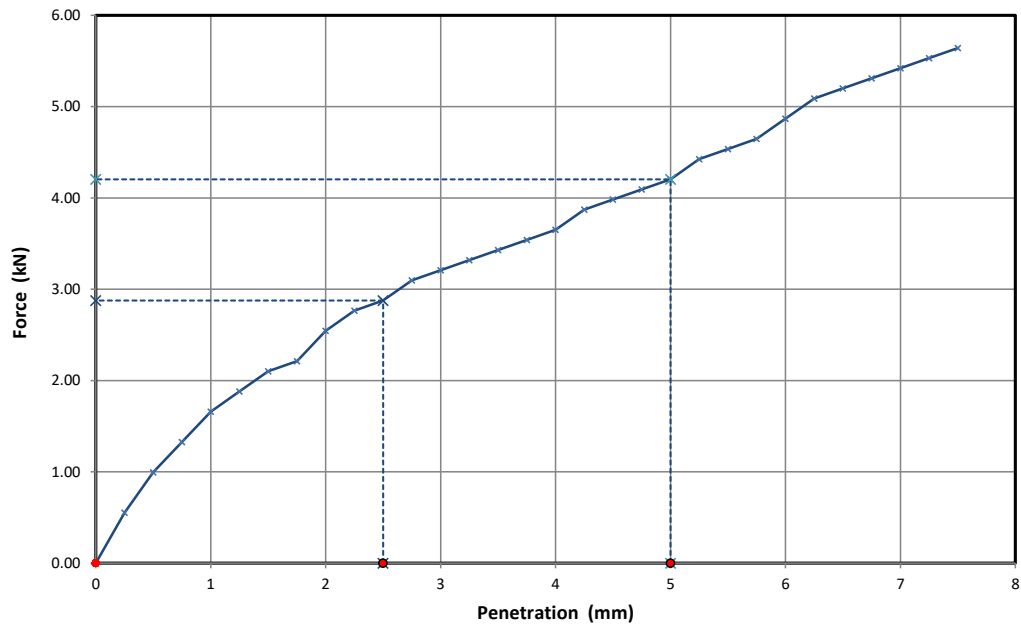
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.82
Remarks	

CBR Test Values			
2.5mm Top	0.510	2.5mm Bottom	
5mm Top	0.76	5mm Bottom	
CBR Value %	0.76	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP17
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	0.50
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	12
Moisture Top (%)	13
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.01
Dry Density (Mg/m3)	1.79

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	22.000	2.5mm Bottom	
5mm Top	21	5mm Bottom	
CBR Value %	22	CBR Value %	

Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number 62358

Borehole/Pit No. TP17

Project Name Horton Heath

Sample No.

Soil Description *See Sample Description Sheet

Depth Top 1.00

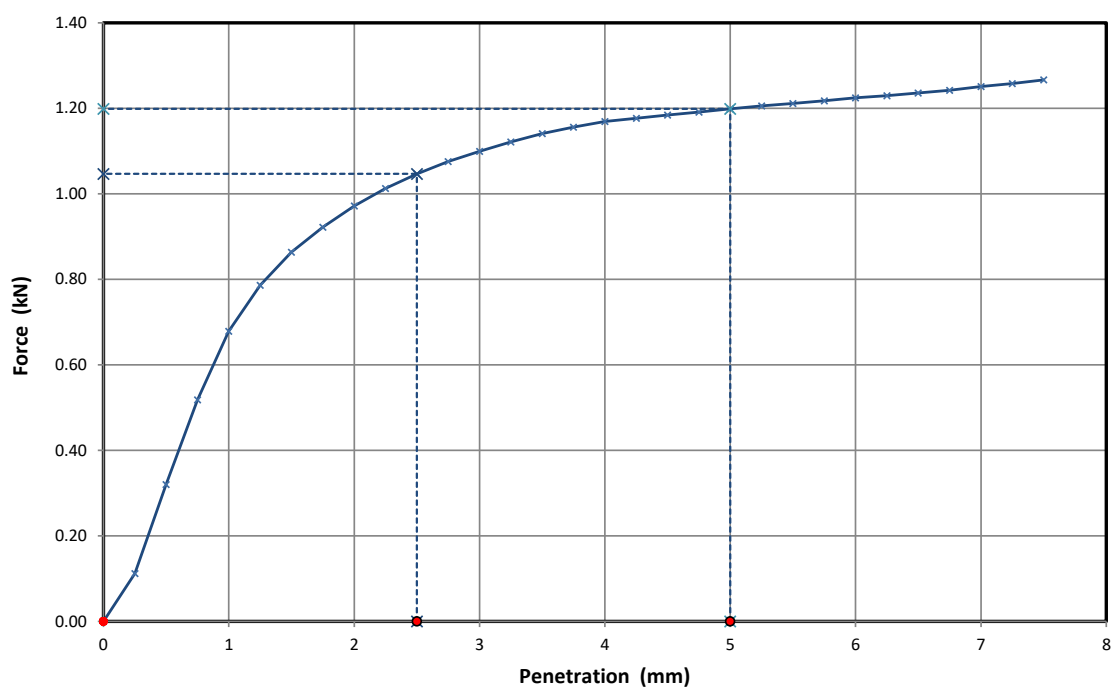
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 16/11/2022



Initial Sample Conditions	
Moisture Content (%)	22
Moisture Top (%)	23
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.92
Dry Density (Mg/m3)	1.58

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.67
Remarks	

CBR Test Values			
2.5mm Top	7.9	2.5mm Bottom	
5mm Top	6	5mm Bottom	
CBR Value %	7.9	CBR Value %	

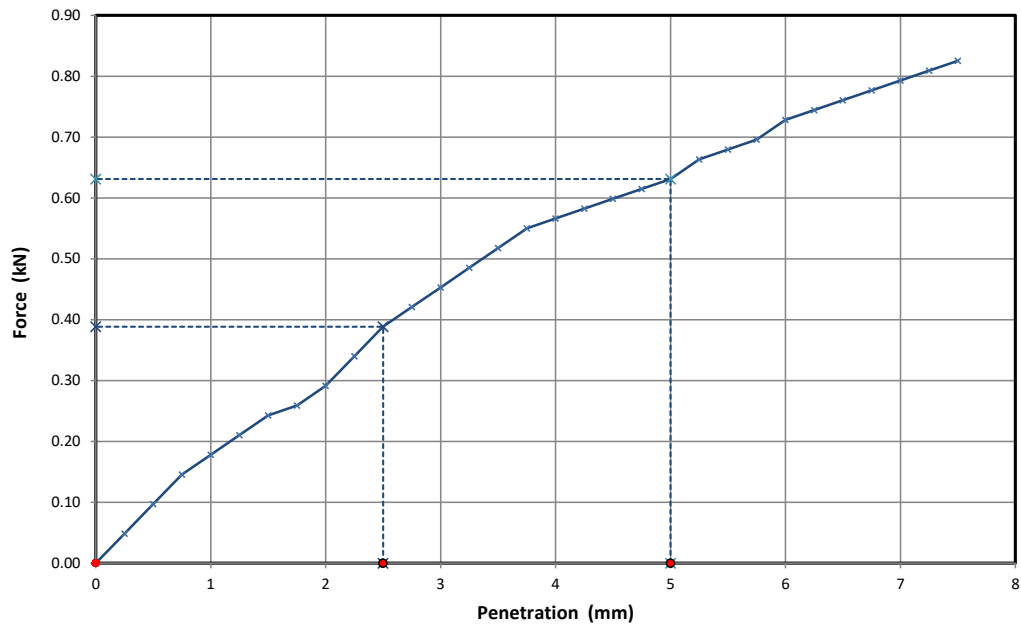
Operator
Conor





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number	62358	Borehole/Pit No.	TP18
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	3	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	16
Moisture Top (%)	18
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.92
Dry Density (Mg/m3)	1.65

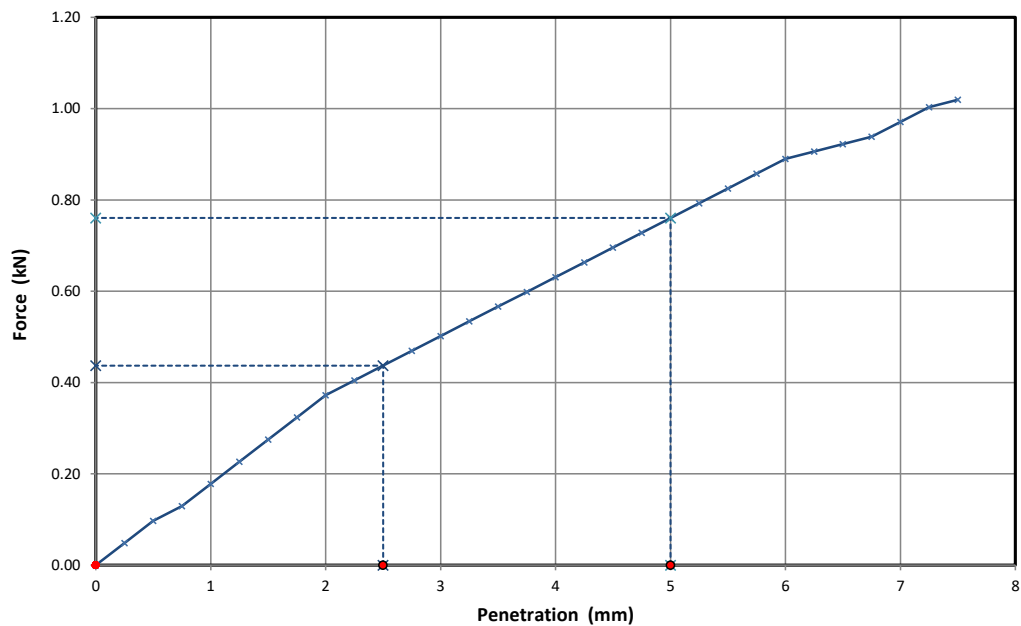
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.81
Remarks	

CBR Test Values			
2.5mm Top	2.900	2.5mm Bottom	
5mm Top	3.2	5mm Bottom	
CBR Value %	3.2	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP19
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	25
Moisture Top (%)	26
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.98
Dry Density (Mg/m3)	1.58

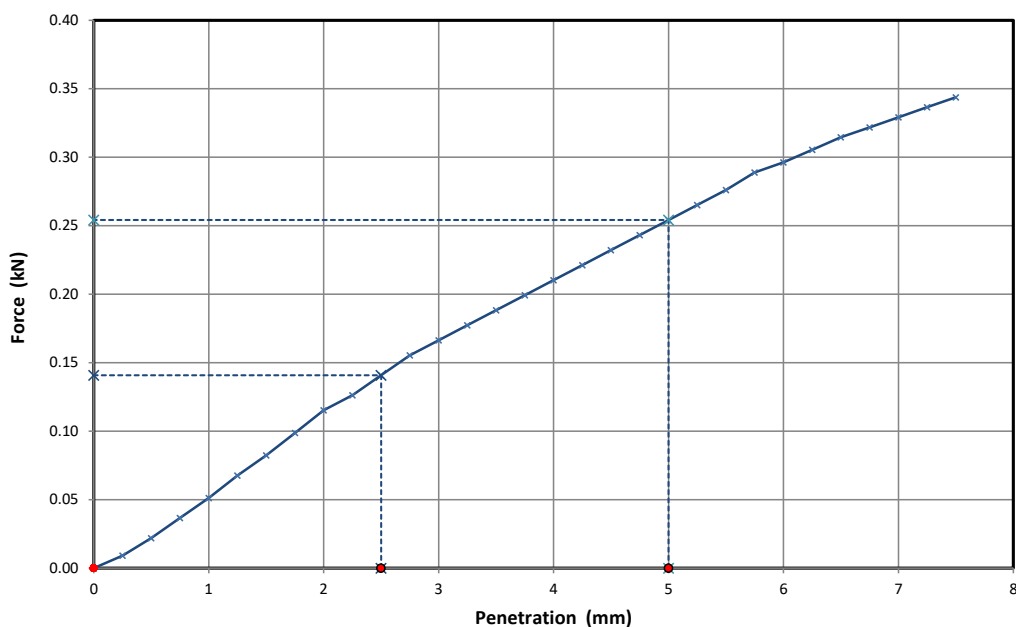
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.3
Remarks	

CBR Test Values			
2.5mm Top	3.300	2.5mm Bottom	
5mm Top	3.8	5mm Bottom	
CBR Value %	3.8	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP20
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	21
Moisture Top (%)	35
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.92
Dry Density (Mg/m3)	1.59

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.78
Remarks	

CBR Test Values			
2.5mm Top	1.100	2.5mm Bottom	
5mm Top	1.3	5mm Bottom	
CBR Value %	1.3	CBR Value %	

Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number 62358

Borehole/Pit No. TP22

Project Name Horton Heath

Sample No.

Soil Description *See Sample Description Sheet

Depth Top 1.00

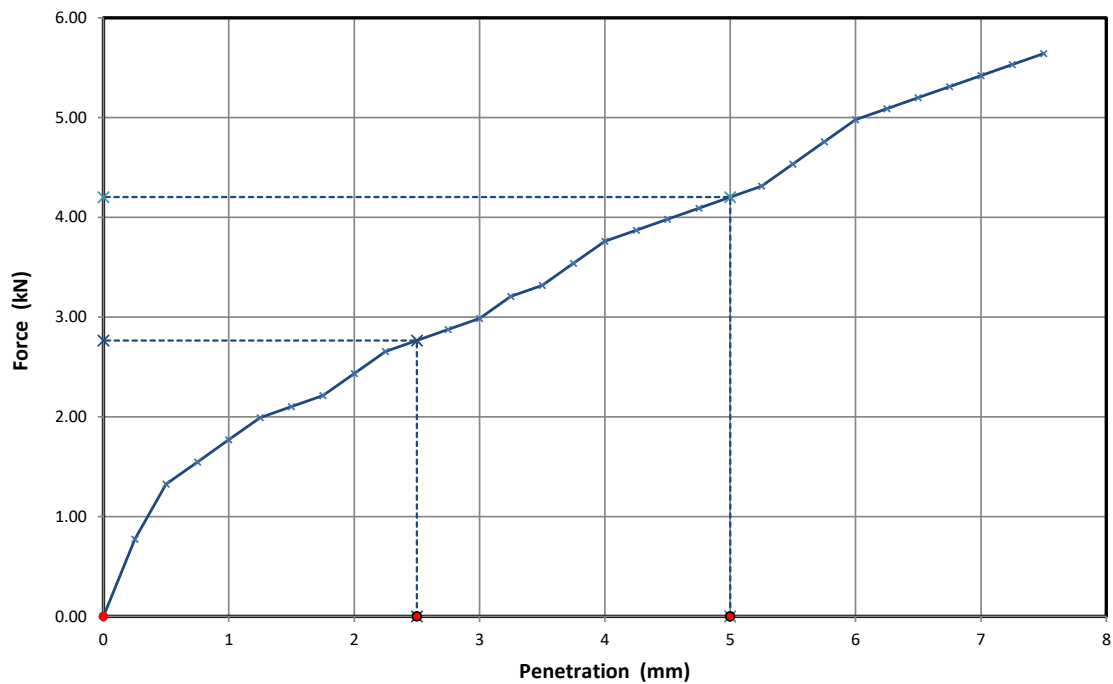
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 21/11/2022



Initial Sample Conditions	
Moisture Content (%)	23
Moisture Top (%)	24
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.87
Dry Density (Mg/m3)	1.53

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.26
Remarks	

CBR Test Values			
2.5mm Top	21.000	2.5mm Bottom	
5mm Top	21	5mm Bottom	
CBR Value %	21	CBR Value %	

Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number 62358

Borehole/Pit No. TP23

Project Name Horton Heath

Sample No.

Soil Description *See Sample Description Sheet

Depth Top 1.00

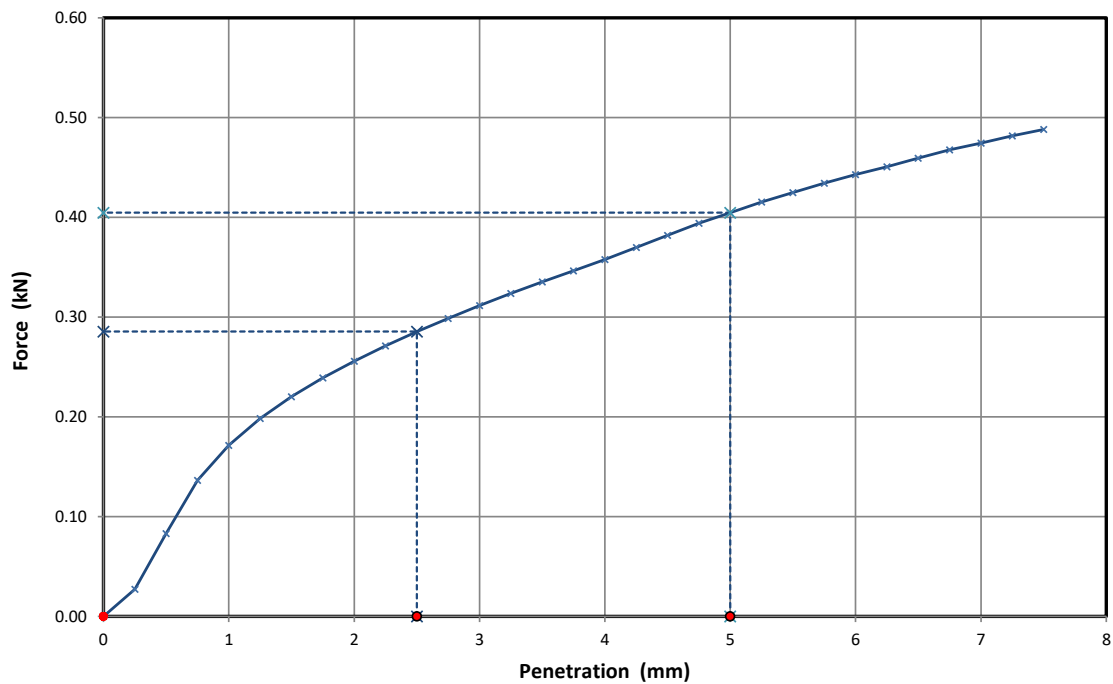
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 17/11/2022



Initial Sample Conditions	
Moisture Content (%)	23
Moisture Top (%)	26
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.98
Dry Density (Mg/m3)	1.61

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.54
Remarks	

CBR Test Values			
2.5mm Top	2.2	2.5mm Bottom	
5mm Top	2	5mm Bottom	
CBR Value %	2.2	CBR Value %	

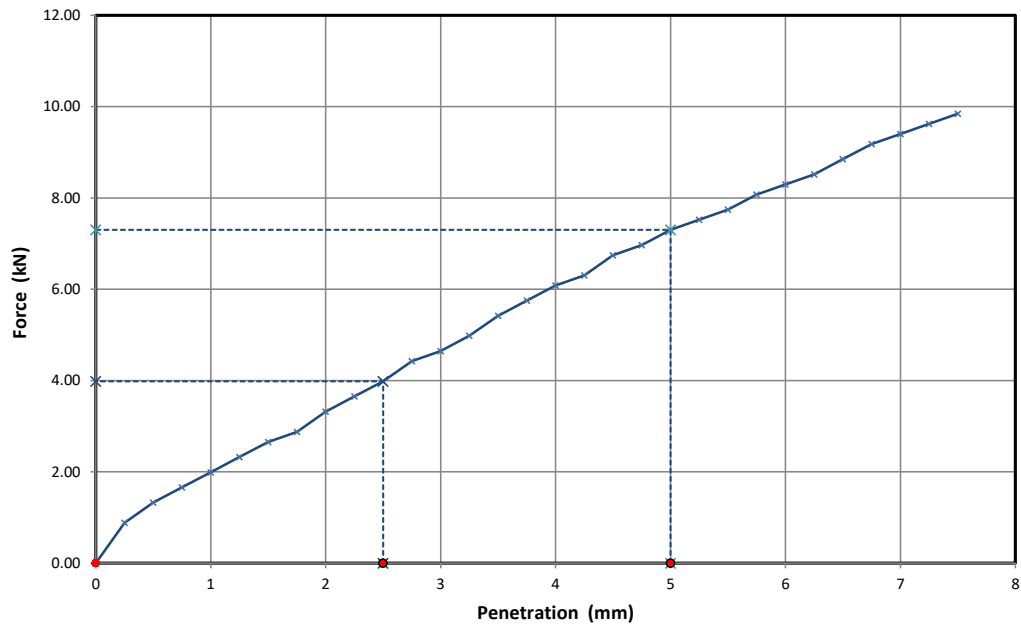
Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number	62358	Project Name	Horton Heath	Borehole/Pit No.	TP24
Sample No.	2	Soil Description	*See Sample Description Sheet	Depth Top	0.50
Depth Base		Compaction Method	2.5 Kg Rammer	Sample Type	B
Retained 20mm (%)	1	Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	11
Moisture Top (%)	11
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.98
Dry Density (Mg/m3)	1.79

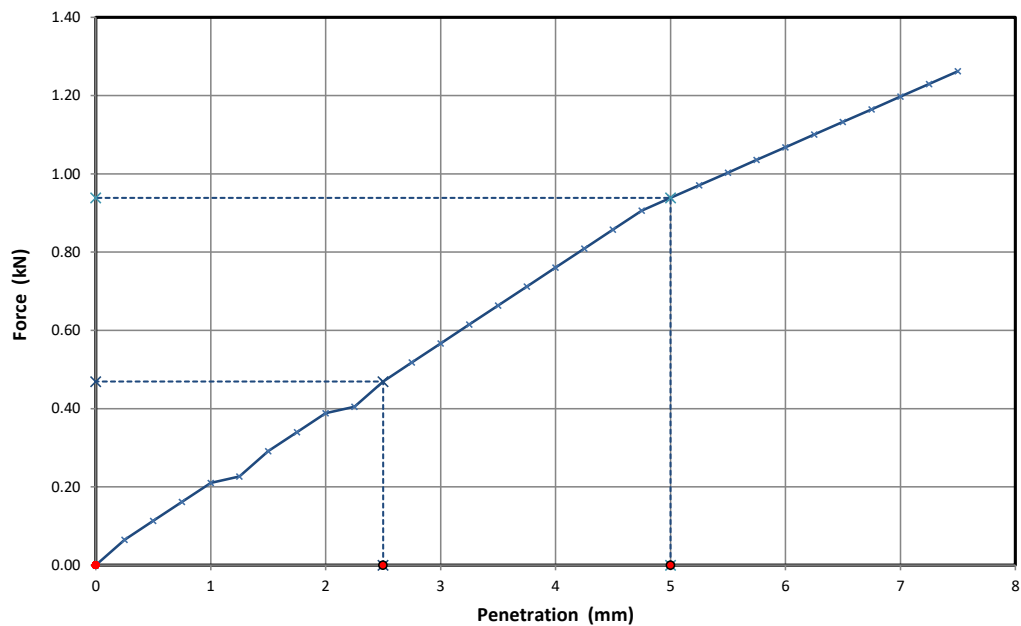
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	30.000	2.5mm Bottom	
5mm Top	37	5mm Bottom	
CBR Value %	37	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP24
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	24
Moisture Top (%)	25
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.98
Dry Density (Mg/m3)	1.60

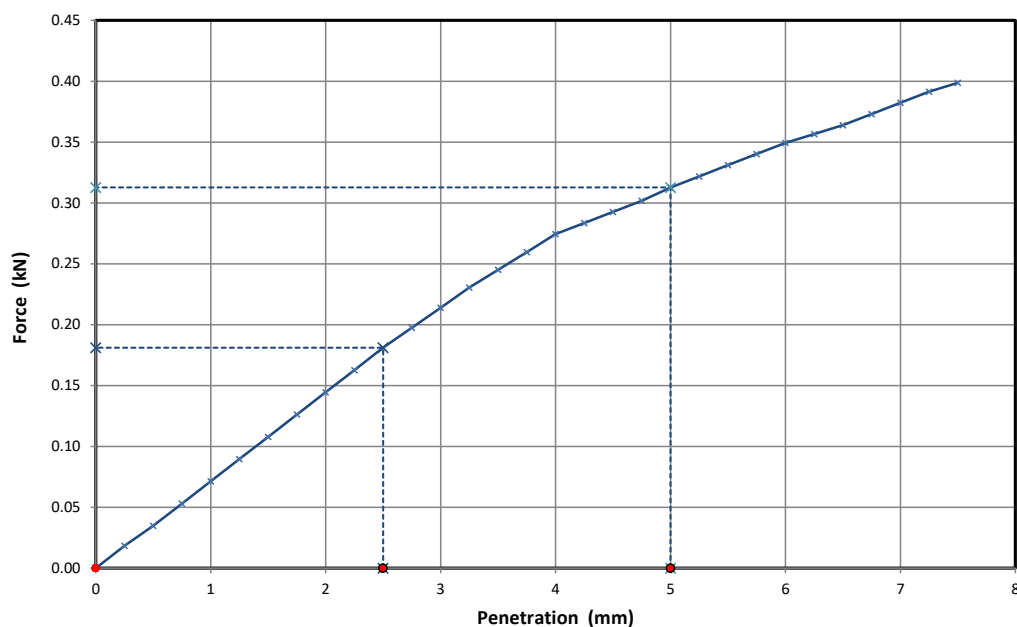
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.23
Remarks	

CBR Test Values			
2.5mm Top	3.600	2.5mm Bottom	
5mm Top	4.7	5mm Bottom	
CBR Value %	4.7	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP25
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	20
Moisture Top (%)	21
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.94
Dry Density (Mg/m3)	1.61

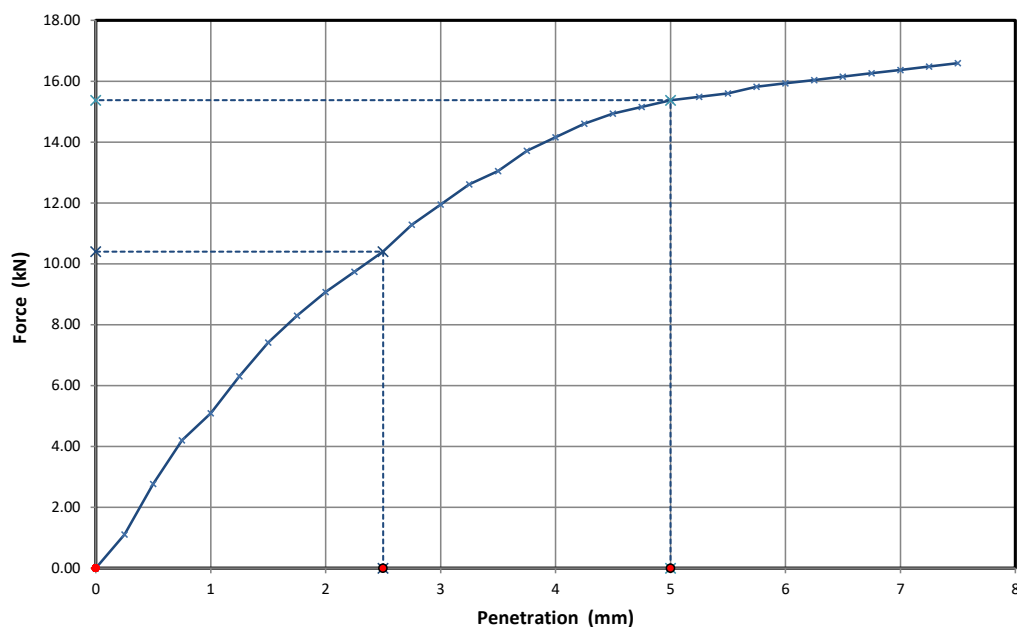
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.28
Remarks	

CBR Test Values			
2.5mm Top	1.400	2.5mm Bottom	
5mm Top	1.6	5mm Bottom	
CBR Value %	1.6	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP26
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	0.50
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	3	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	13
Moisture Top (%)	13
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.03
Dry Density (Mg/m3)	1.80

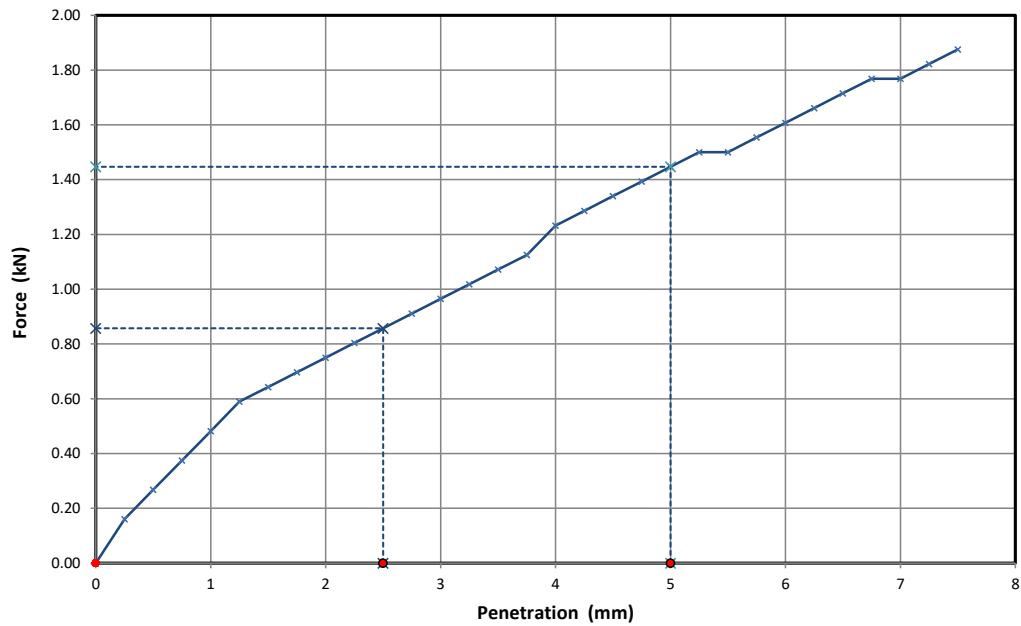
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	5 % Lime

CBR Test Values			
2.5mm Top	79.000	2.5mm Bottom	
5mm Top	77	5mm Bottom	
CBR Value %	79	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP26
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	4	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	15
Moisture Top (%)	19
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.99
Dry Density (Mg/m3)	1.74

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.79
Remarks	

CBR Test Values			
2.5mm Top	6.500	2.5mm Bottom	
5mm Top	7.2	5mm Bottom	
CBR Value %	7.2	CBR Value %	

Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number 62358

Borehole/Pit No. TP27

Project Name Horton Heath

Sample No. 1

Soil Description *See Sample Description Sheet

Depth Top 1.00

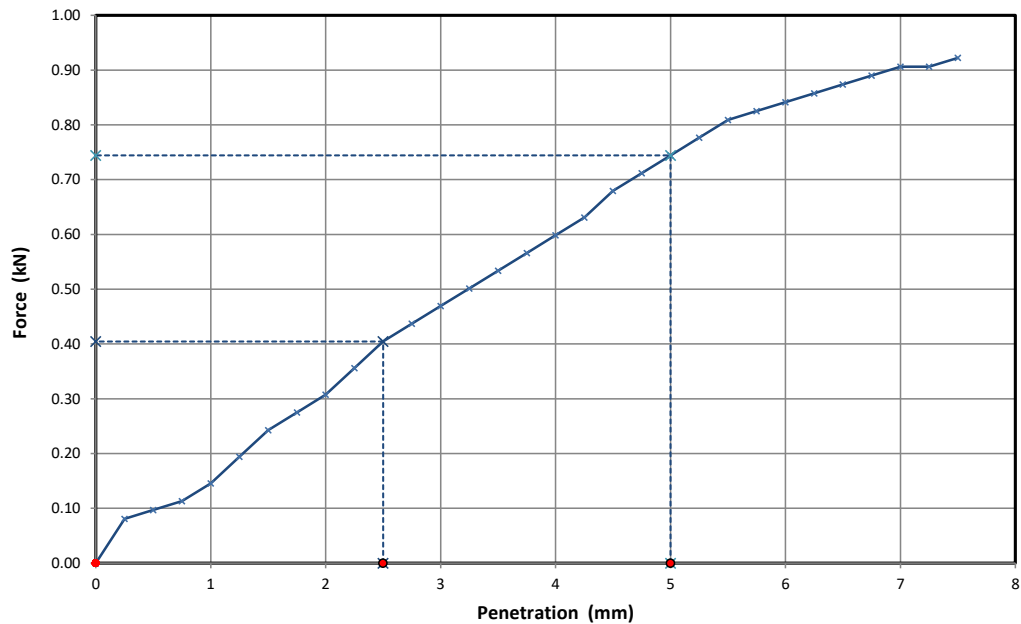
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 21/11/2022



Initial Sample Conditions	
Moisture Content (%)	22
Moisture Top (%)	24
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.99
Dry Density (Mg/m3)	1.63

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.21
Remarks	

CBR Test Values			
2.5mm Top	3.100	2.5mm Bottom	
5mm Top	3.7	5mm Bottom	
CBR Value %	3.7	CBR Value %	

Operator
Conal





California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7

Contract Number 62358

Borehole/Pit No. TP28

Project Name Horton Heath

Sample No.

Soil Description *See Sample Description Sheet

Depth Top 1.00

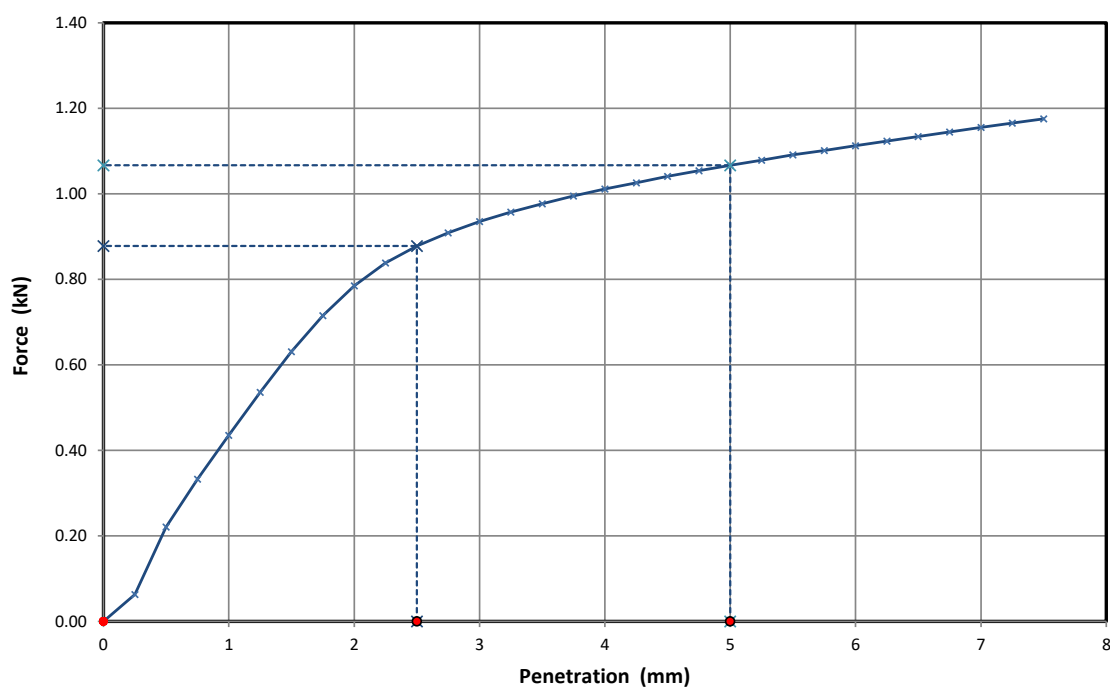
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 17/11/2022



Initial Sample Conditions	
Moisture Content (%)	13
Moisture Top (%)	21
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.06
Dry Density (Mg/m3)	1.81

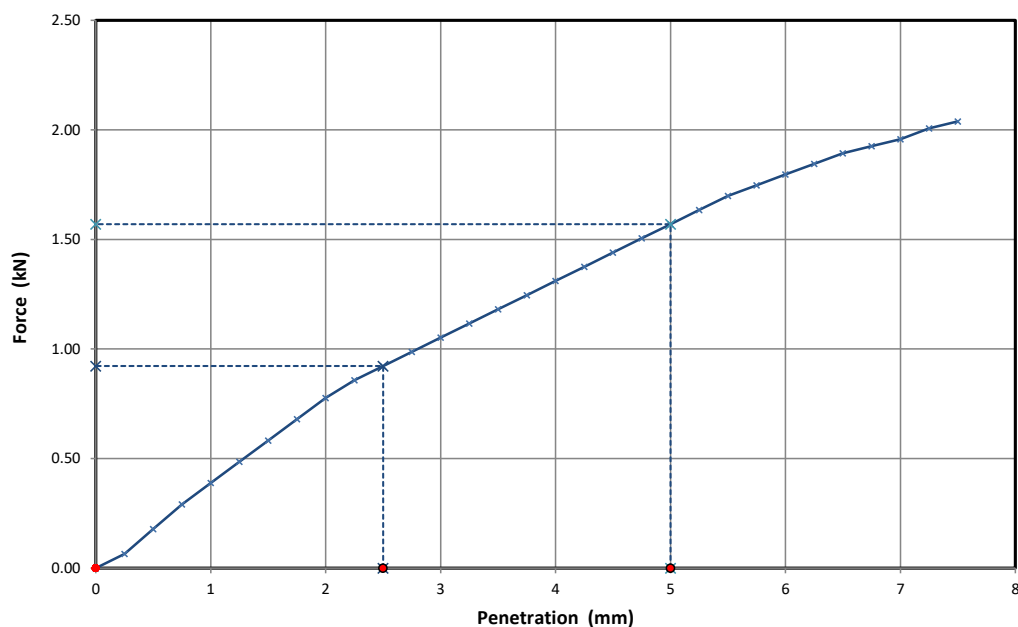
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.9
Remarks	

CBR Test Values			
2.5mm Top	6.7	2.5mm Bottom	
5mm Top	5.3	5mm Bottom	
CBR Value %	6.7	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP29
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	20
Moisture Top (%)	22
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.02
Dry Density (Mg/m3)	1.68

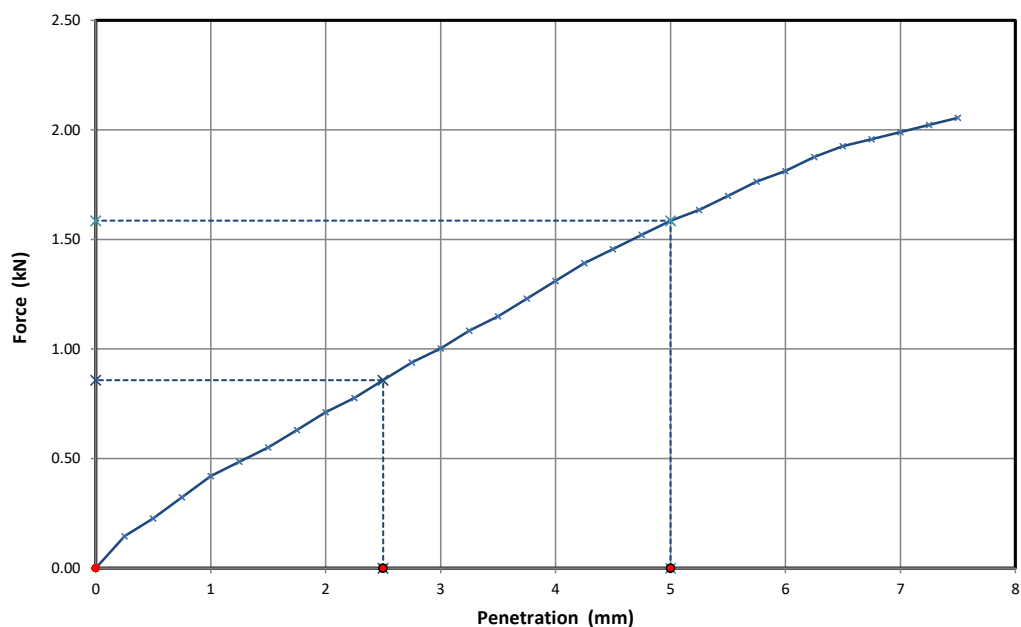
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.23
Remarks	

CBR Test Values			
2.5mm Top	7.000	2.5mm Bottom	
5mm Top	7.8	5mm Bottom	
CBR Value %	7.8	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP30
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	16
Moisture Top (%)	20
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.95
Dry Density (Mg/m3)	1.68

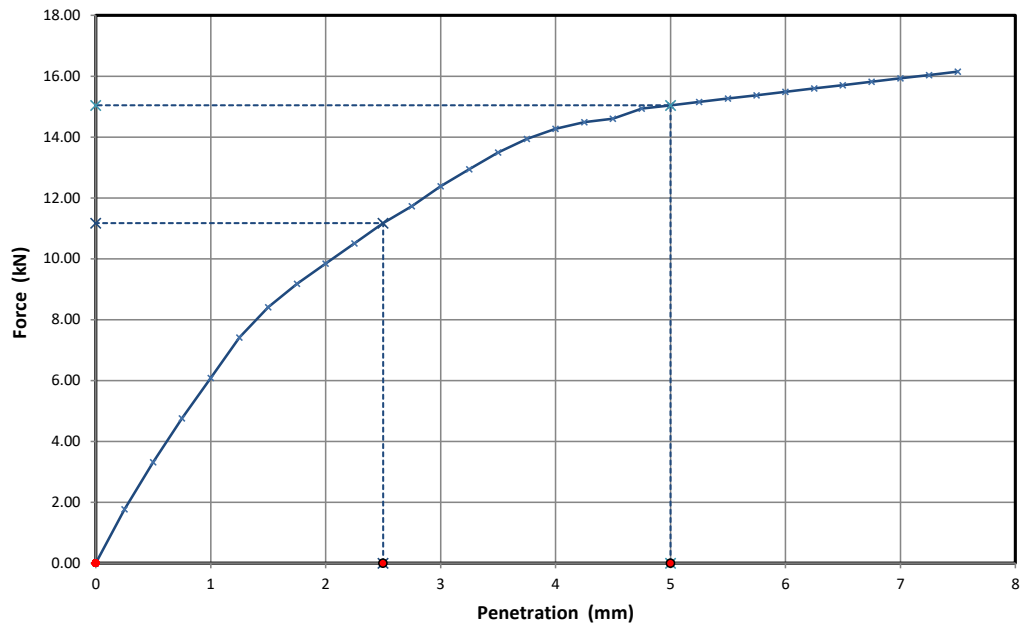
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.49
Remarks	

CBR Test Values			
2.5mm Top	6.500	2.5mm Bottom	
5mm Top	7.9	5mm Bottom	
CBR Value %	7.9	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP31
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	0.50
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	9.4
Moisture Top (%)	9.4
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.93
Dry Density (Mg/m3)	1.77

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	5 % Lime

CBR Test Values			
2.5mm Top	85.000	2.5mm Bottom	
5mm Top	75	5mm Bottom	
CBR Value %	85	CBR Value %	

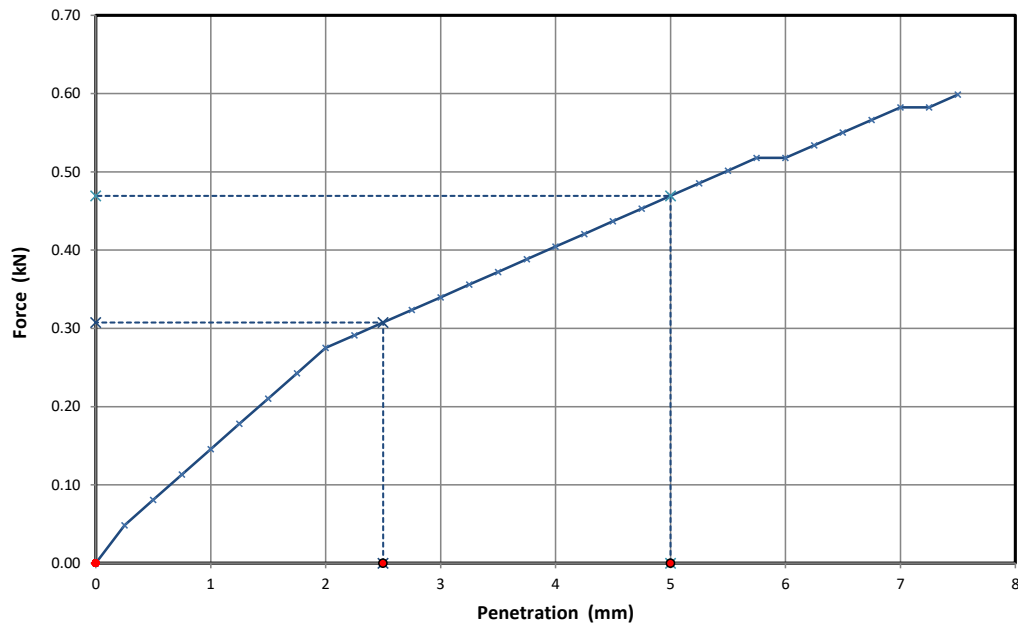
Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number	62358	Project Name	Horton Heath	Borehole/Pit No.	TP31
Sample No.	1	Soil Description	*See Sample Description Sheet	Depth Top	1.00
Depth Base		Compaction Method	2.5 Kg Rammer	Sample Type	B
Date Tested	21/11/2022	Retained 20mm (%)	0		



Initial Sample Conditions	
Moisture Content (%)	15
Moisture Top (%)	18
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.03
Dry Density (Mg/m3)	1.76

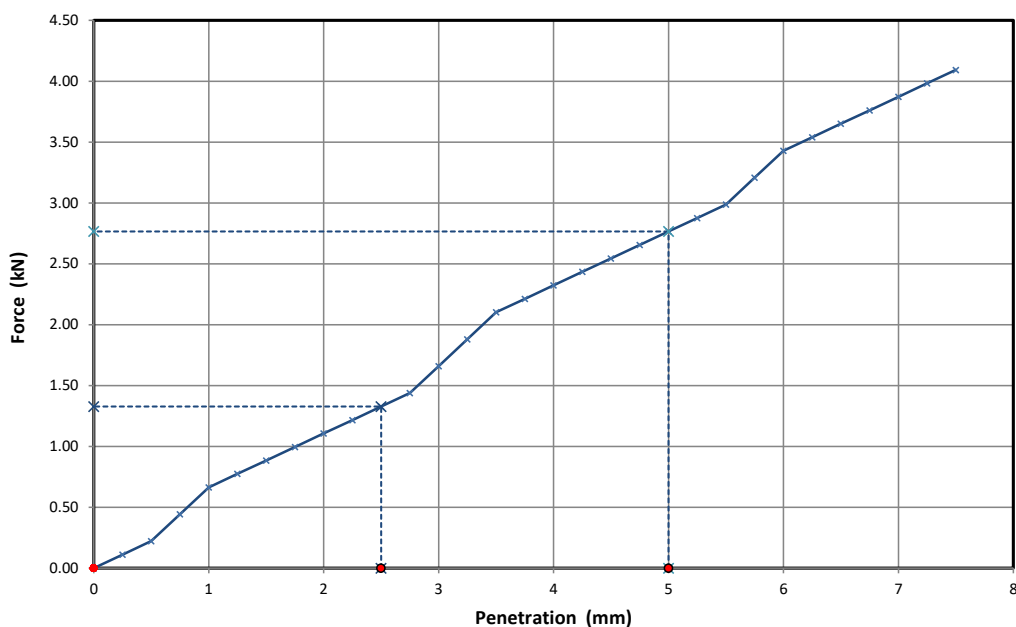
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.97
Remarks	

CBR Test Values			
2.5mm Top	2.300	2.5mm Bottom	
5mm Top	2.3	5mm Bottom	
CBR Value %	2.3	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP32
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	0.40
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	21
Moisture Top (%)	21
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.98
Dry Density (Mg/m3)	1.64

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	5 % Lime

CBR Test Values			
2.5mm Top	10.000	2.5mm Bottom	
5mm Top	14	5mm Bottom	
CBR Value %	14	CBR Value %	

Operator
Conal





California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7

Contract Number 62358

Borehole/Pit No. TP32

Project Name Horton Heath

Sample No.

Soil Description *See Sample Description Sheet

Depth Top 1.00

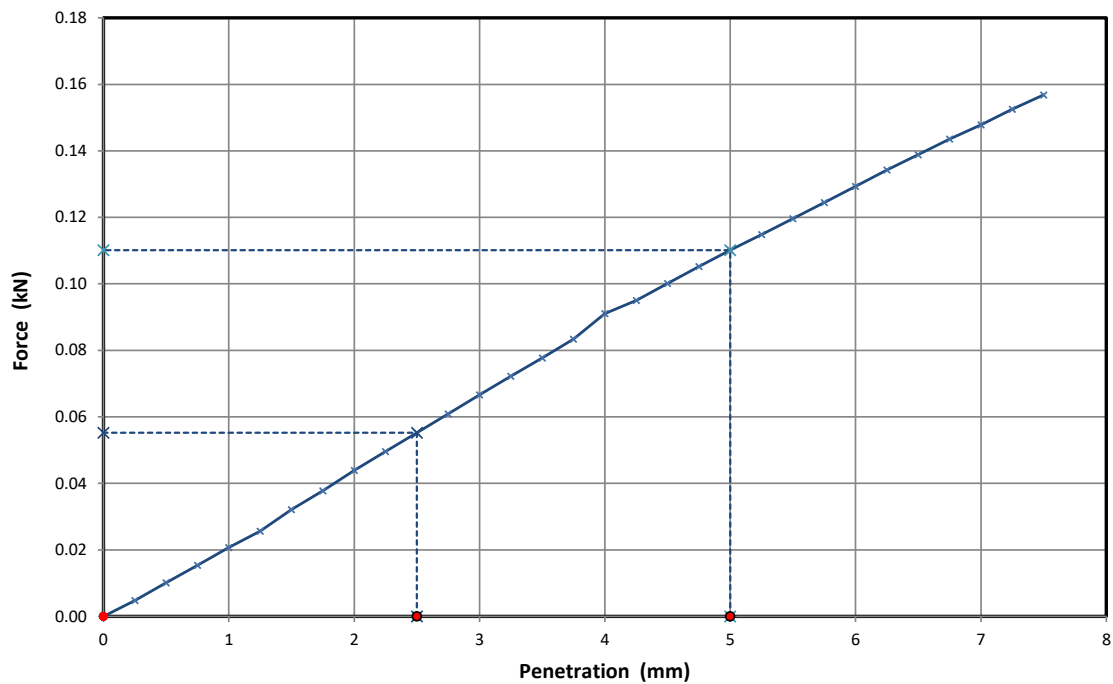
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 17/11/2022



Initial Sample Conditions	
Moisture Content (%)	24
Moisture Top (%)	31
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.98
Dry Density (Mg/m3)	1.60

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.88
Remarks	

CBR Test Values			
2.5mm Top	0.42	2.5mm Bottom	
5mm Top	0.55	5mm Bottom	
CBR Value %	0.55	CBR Value %	

Operator
Conal





California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7

Contract Number 62358

Borehole/Pit No. TP33

Project Name Horton Heath

Sample No.

Soil Description *See Sample Description Sheet

Depth Top 1.00

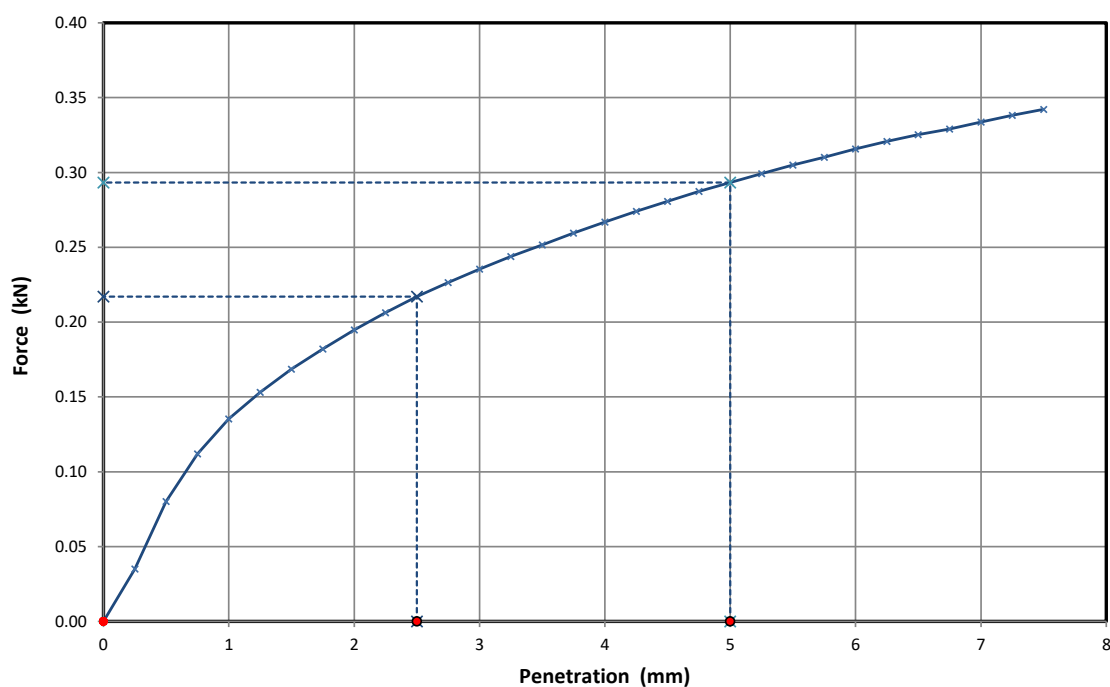
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 17/11/2022



Initial Sample Conditions	
Moisture Content (%)	18
Moisture Top (%)	24
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.02
Dry Density (Mg/m3)	1.70

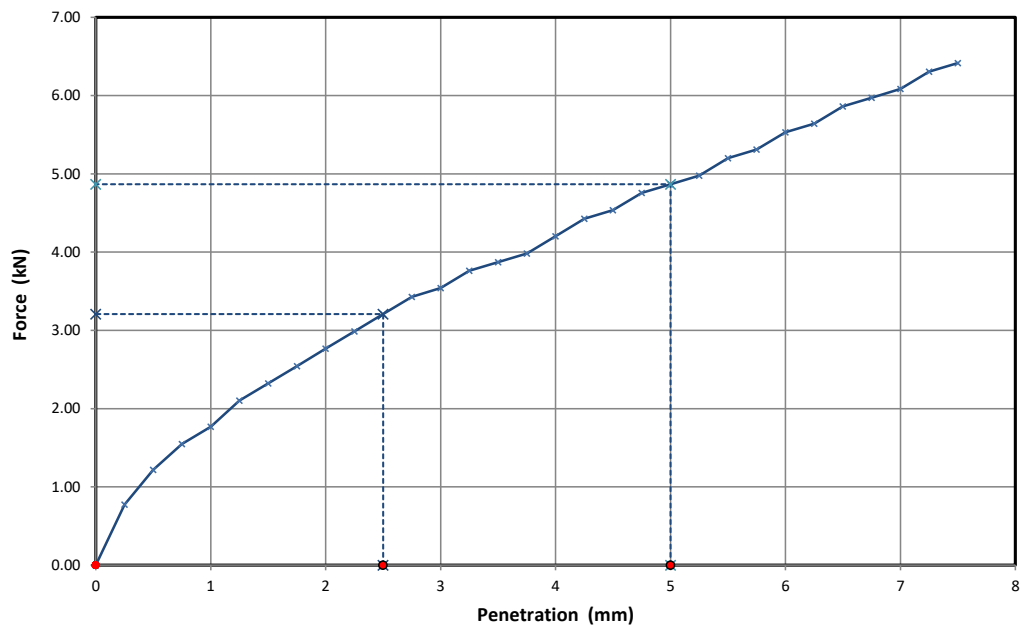
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.36
Remarks	

CBR Test Values			
2.5mm Top	1.6	2.5mm Bottom	
5mm Top	1.5	5mm Bottom	
CBR Value %	1.6	CBR Value %	

Operator
Conor



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP34
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	0.80
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	12
Moisture Top (%)	13
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.08
Dry Density (Mg/m3)	1.85

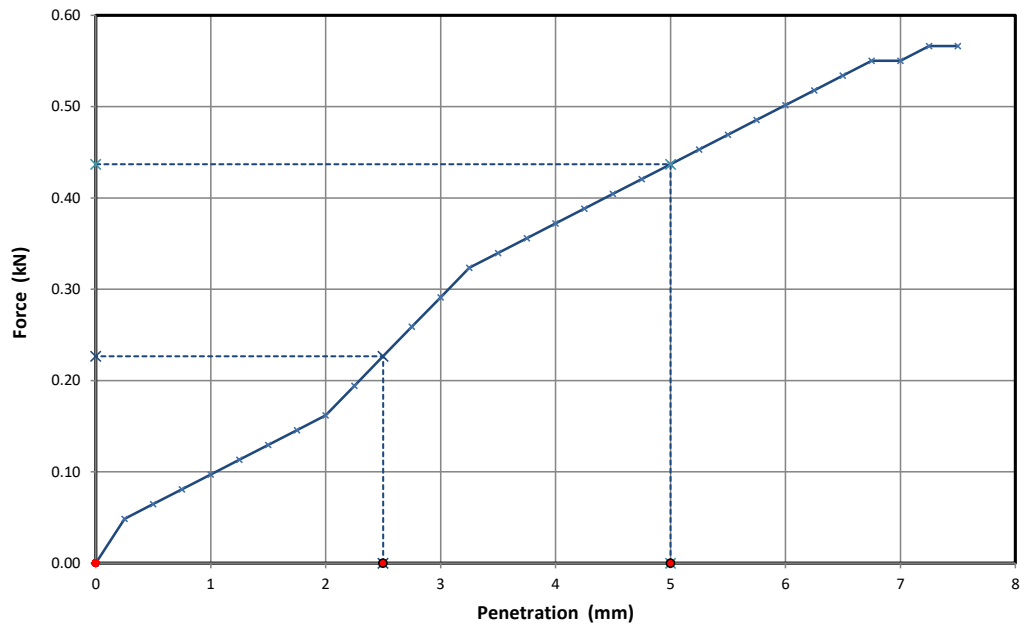
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	24.000	2.5mm Bottom	
5mm Top	24	5mm Bottom	
CBR Value %	24	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP34
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	28
Moisture Top (%)	31
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.91
Dry Density (Mg/m3)	1.49

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.89
Remarks	

CBR Test Values			
2.5mm Top	1.700	2.5mm Bottom	
5mm Top	2.2	5mm Bottom	
CBR Value %	2.2	CBR Value %	

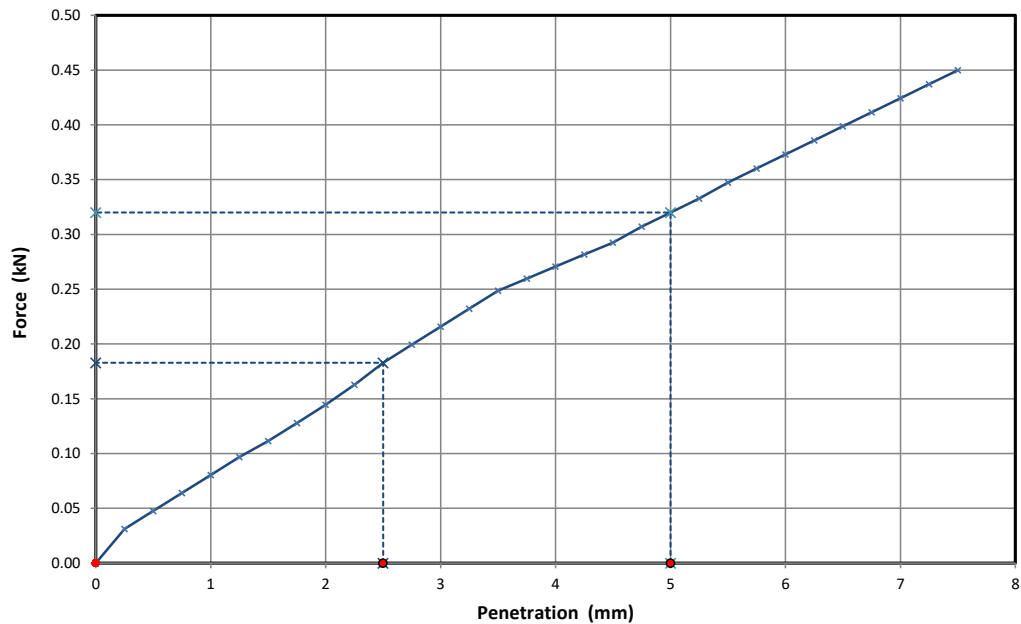
Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

 GSTL Geotechnical & Structural Testing Laboratory	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP35
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	23
Moisture Top (%)	26
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.91
Dry Density (Mg/m3)	1.55

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.33
Remarks	

CBR Test Values			
2.5mm Top	1.400	2.5mm Bottom	
5mm Top	1.6	5mm Bottom	
CBR Value %	1.6	CBR Value %	

Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number 62358

Borehole/Pit No. TP36

Project Name Horton Heath

Sample No.

Soil Description *See Sample Description Sheet

Depth Top 1.00

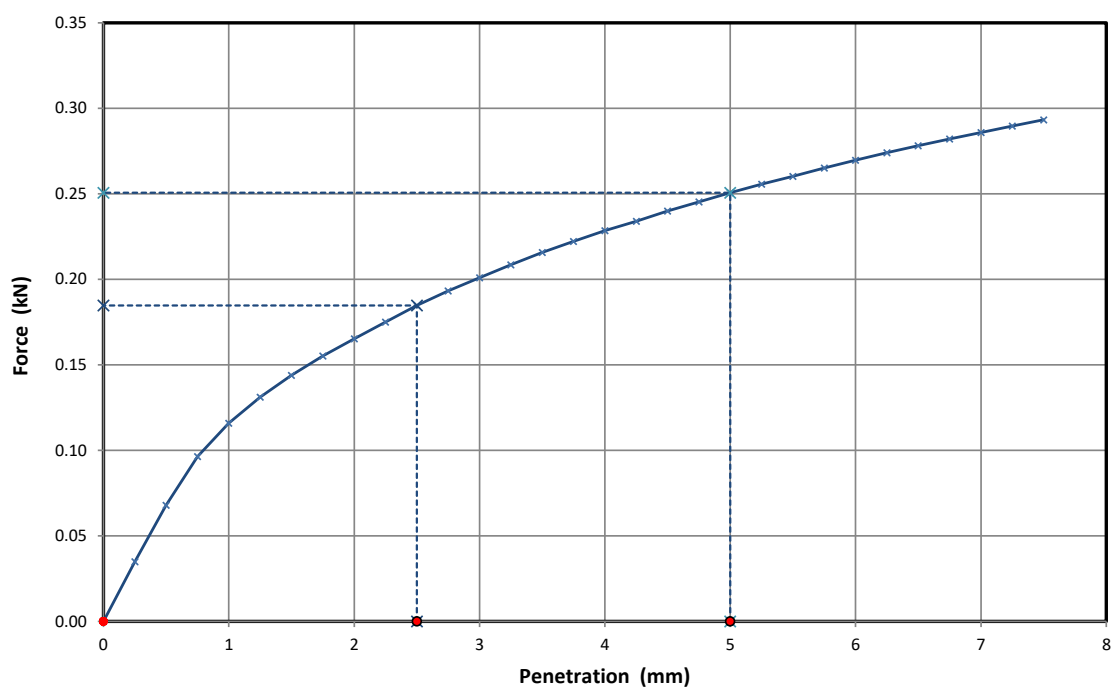
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 17/11/2022



Initial Sample Conditions	
Moisture Content (%)	32
Moisture Top (%)	31
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.89
Dry Density (Mg/m3)	1.44

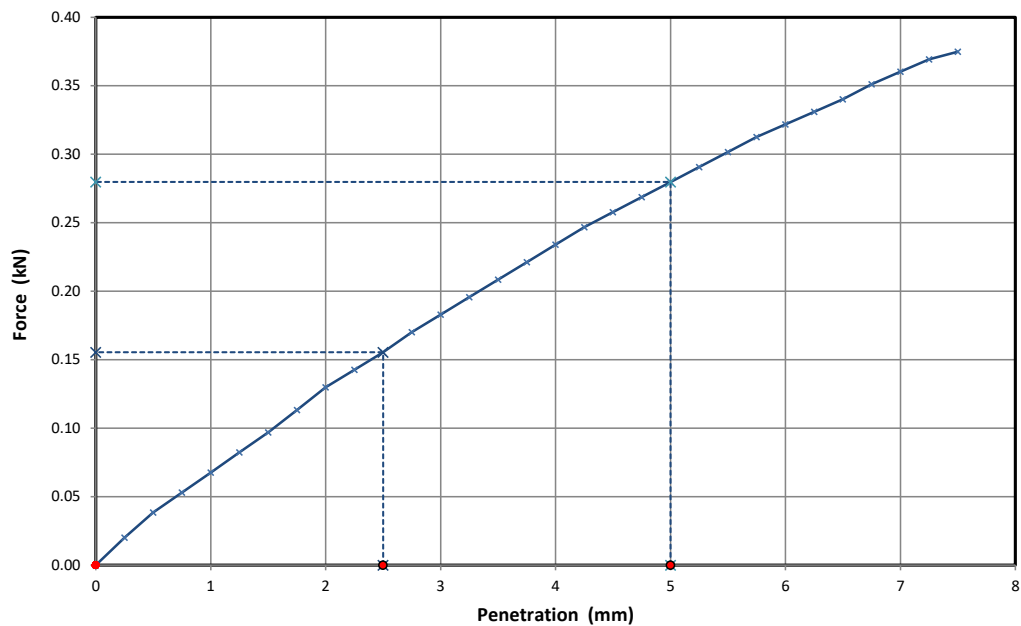
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.84
Remarks	

CBR Test Values			
2.5mm Top	1.4	2.5mm Bottom	
5mm Top	1.3	5mm Bottom	
CBR Value %	1.4	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP37
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	24
Moisture Top (%)	24
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.90
Dry Density (Mg/m3)	1.53

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.3
Remarks	

CBR Test Values			
2.5mm Top	1.200	2.5mm Bottom	
5mm Top	1.4	5mm Bottom	
CBR Value %	1.4	CBR Value %	

Operator
Conal





**California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7**

Contract Number 62358

Borehole/Pit No. TP38

Project Name Horton Heath

Sample No. 1

Soil Description *See Sample Description Sheet

Depth Top 1.00

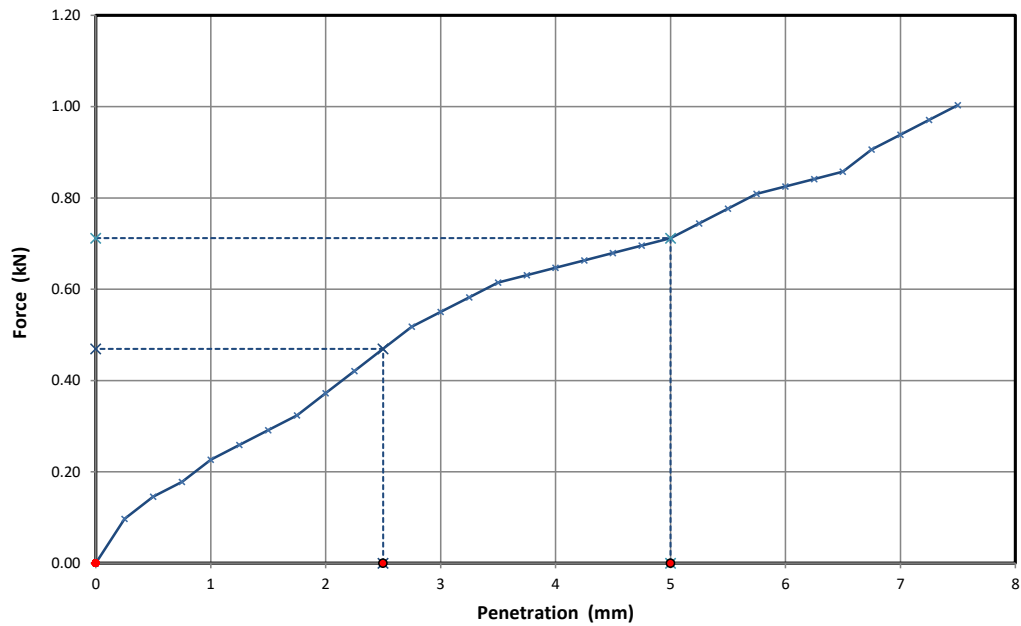
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 21/11/2022



Initial Sample Conditions	
Moisture Content (%)	24
Moisture Top (%)	24
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.00
Dry Density (Mg/m3)	1.62

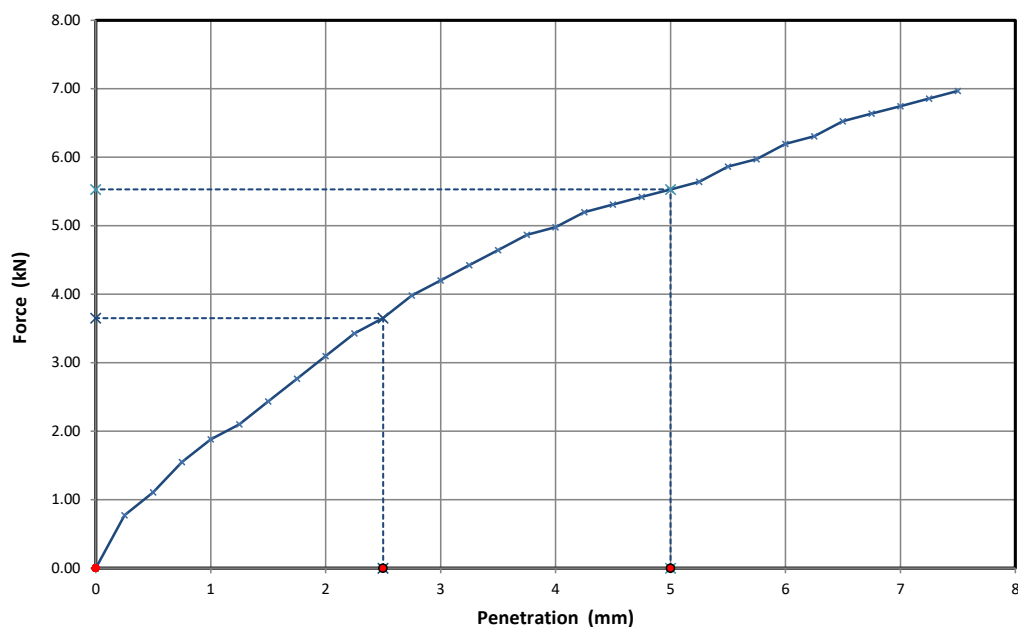
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.43
Remarks	

CBR Test Values			
2.5mm Top	3.600	2.5mm Bottom	
5mm Top	3.6	5mm Bottom	
CBR Value %	3.6	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP39
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	0.70
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	13
Moisture Top (%)	14
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.04
Dry Density (Mg/m3)	1.80

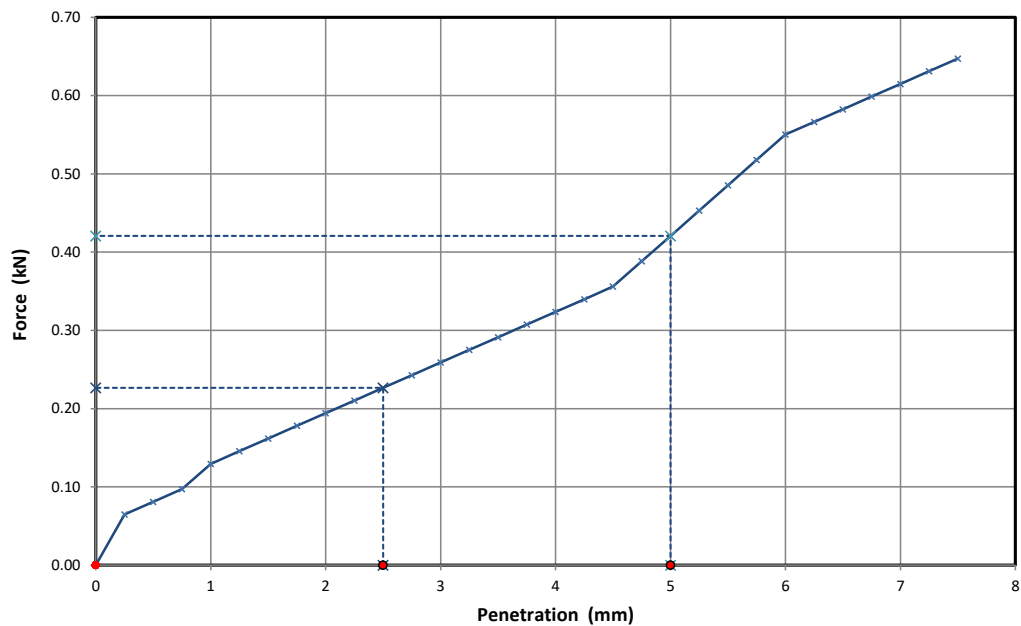
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	28.000	2.5mm Bottom	
5mm Top	28	5mm Bottom	
CBR Value %	28	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP39
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	22
Moisture Top (%)	21
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.00
Dry Density (Mg/m3)	1.64

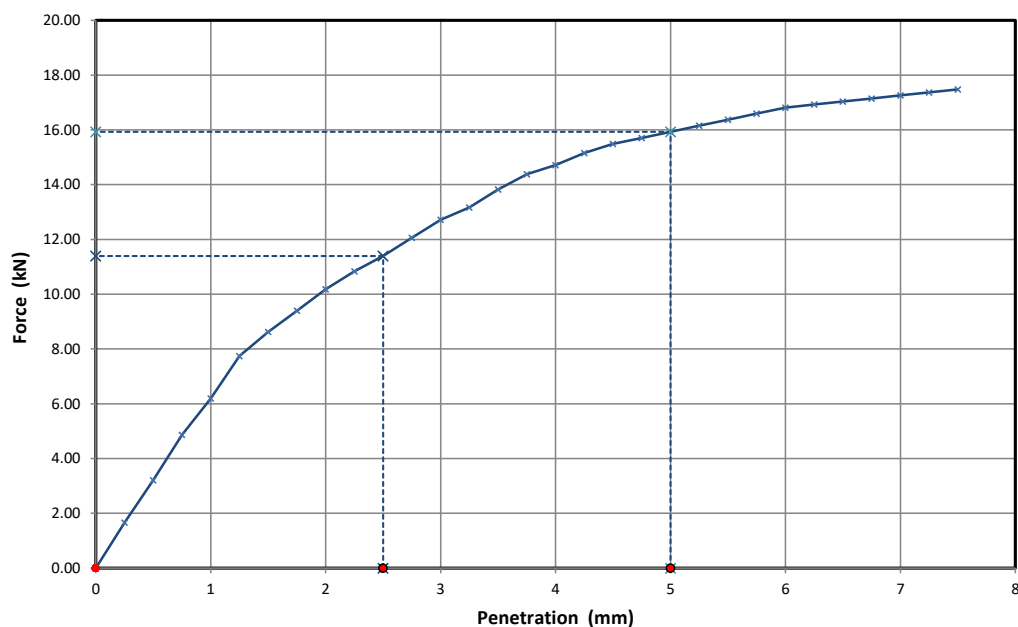
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	1.01
Remarks	

CBR Test Values			
2.5mm Top	1.700	2.5mm Bottom	
5mm Top	2.1	5mm Bottom	
CBR Value %	2.1	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP40
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	0.60
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	8.4
Moisture Top (%)	8.4
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.90
Dry Density (Mg/m3)	1.75

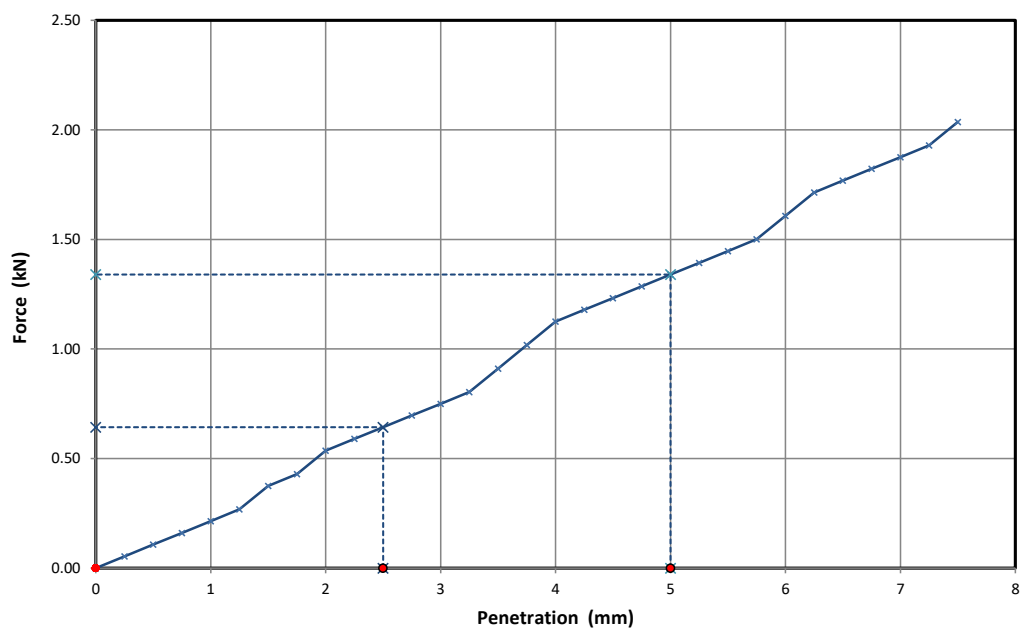
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	5 % Lime

CBR Test Values			
2.5mm Top	86.000	2.5mm Bottom	
5mm Top	80	5mm Bottom	
CBR Value %	86	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP40
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	15
Moisture Top (%)	20
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.01
Dry Density (Mg/m3)	1.75

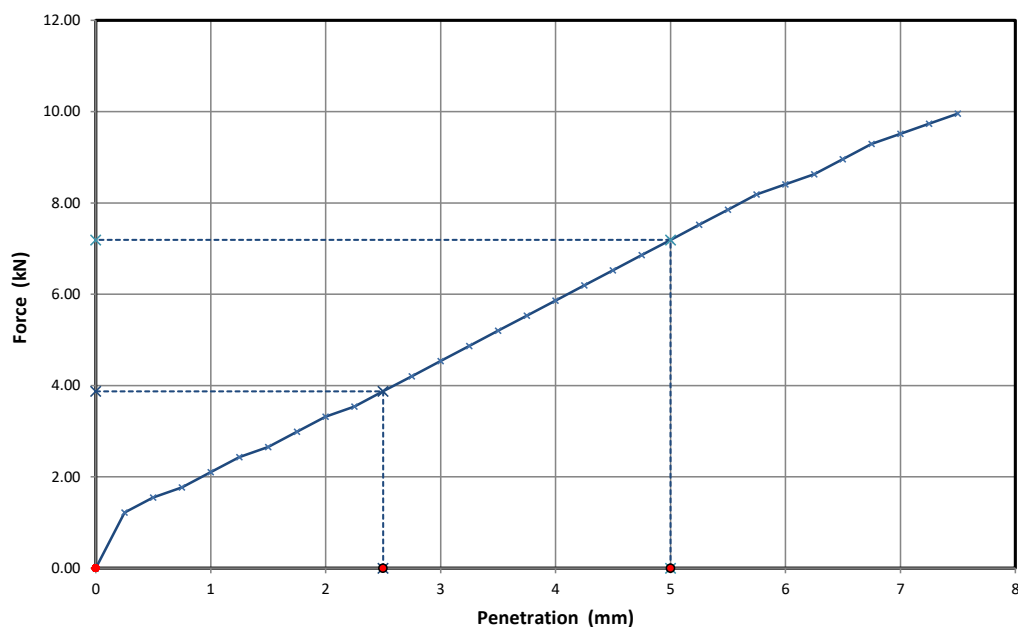
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.19
Remarks	

CBR Test Values			
2.5mm Top	4.900	2.5mm Bottom	
5mm Top	6.7	5mm Bottom	
CBR Value %	6.7	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP41
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	0.40
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	10
Moisture Top (%)	12
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.01
Dry Density (Mg/m3)	1.82

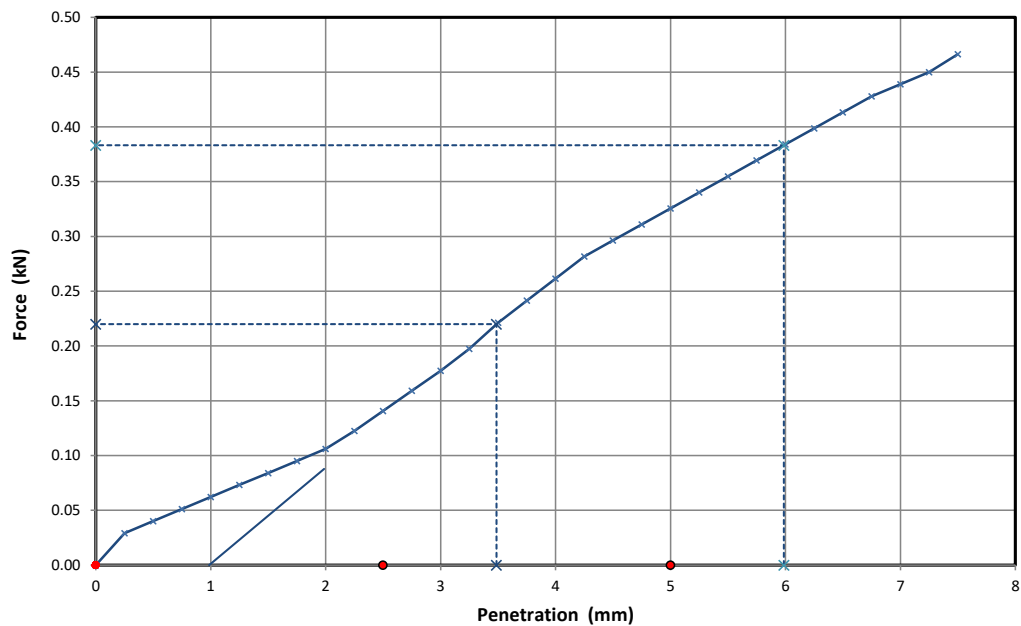
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	29.000	2.5mm Bottom	
5mm Top	36	5mm Bottom	
CBR Value %	36	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP41
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	22
Moisture Top (%)	26
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.93
Dry Density (Mg/m3)	1.58

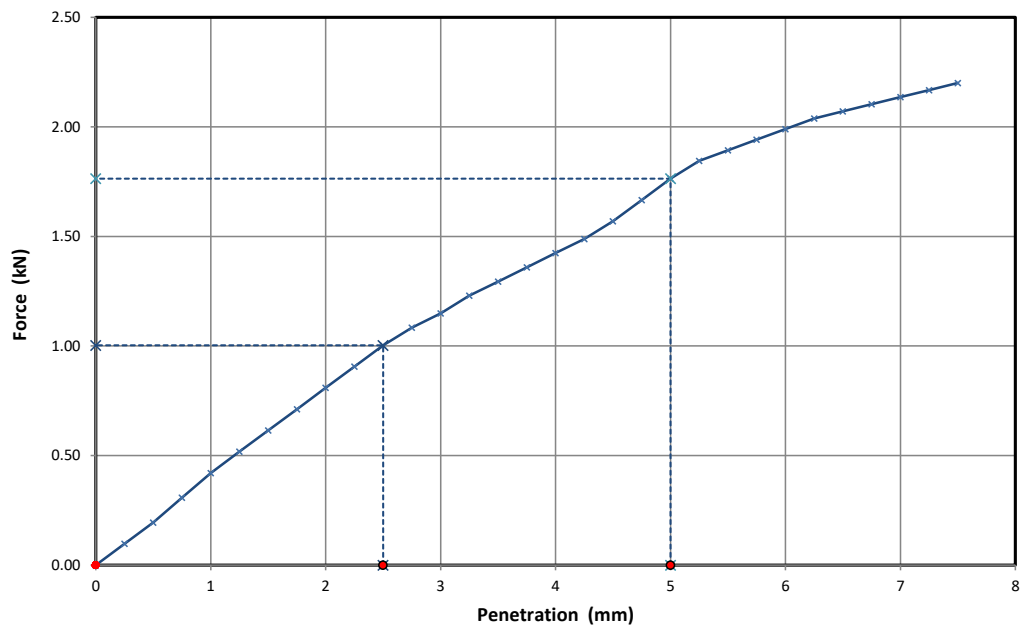
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	1.07
Remarks	

CBR Test Values			
2.5mm Top	1.700	2.5mm Bottom	
5mm Top	1.9	5mm Bottom	
CBR Value %	1.9	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP42
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	22
Moisture Top (%)	31
Moisture Bottom (%)	
Bulk Density (Mg/m3)	1.73
Dry Density (Mg/m3)	1.41

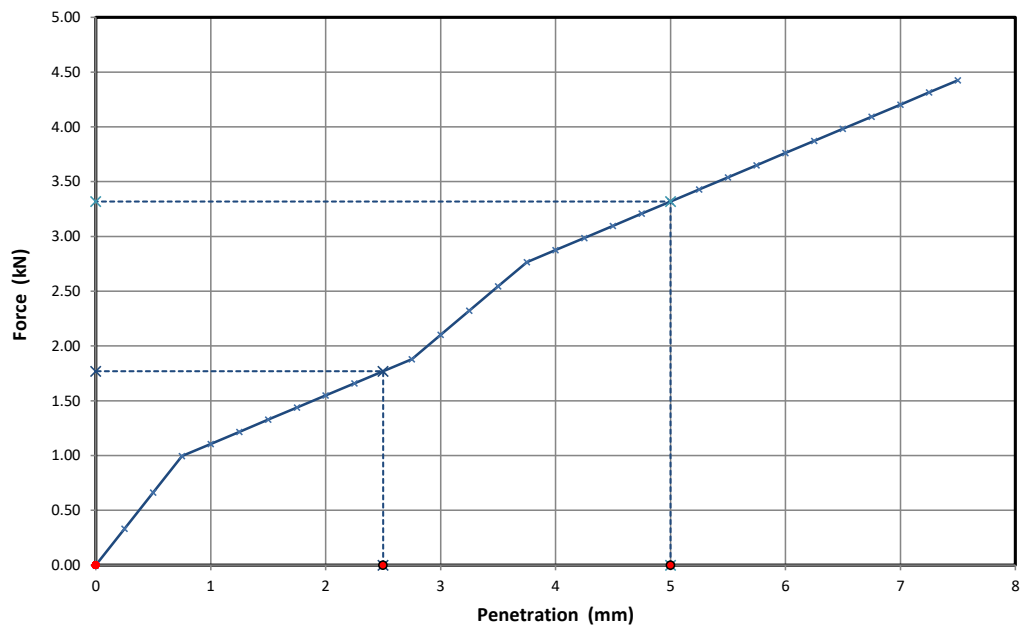
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.68
Remarks	

CBR Test Values			
2.5mm Top	7.600	2.5mm Bottom	
5mm Top	8.8	5mm Bottom	
CBR Value %	8.8	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP43
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	0.60
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	13
Moisture Top (%)	13
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.04
Dry Density (Mg/m3)	1.81

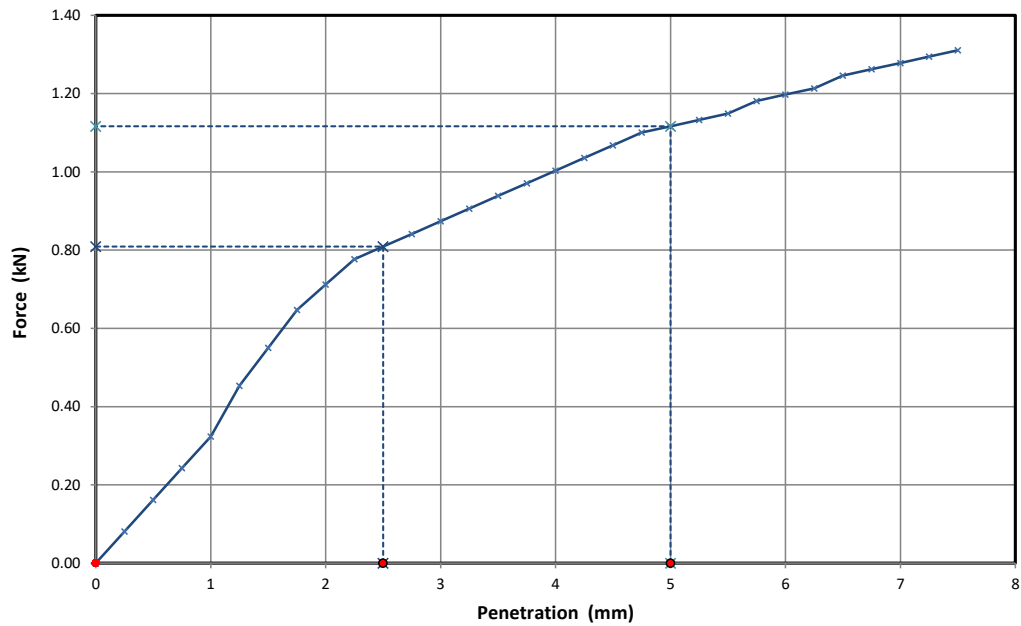
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	13.000	2.5mm Bottom	
5mm Top	17	5mm Bottom	
CBR Value %	17	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP43
Project Name	Horton Heath	Sample No.	1
Soil Description	*See Sample Description Sheet	Depth Top	1.00
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	0	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	14
Moisture Top (%)	20
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.05
Dry Density (Mg/m3)	1.80

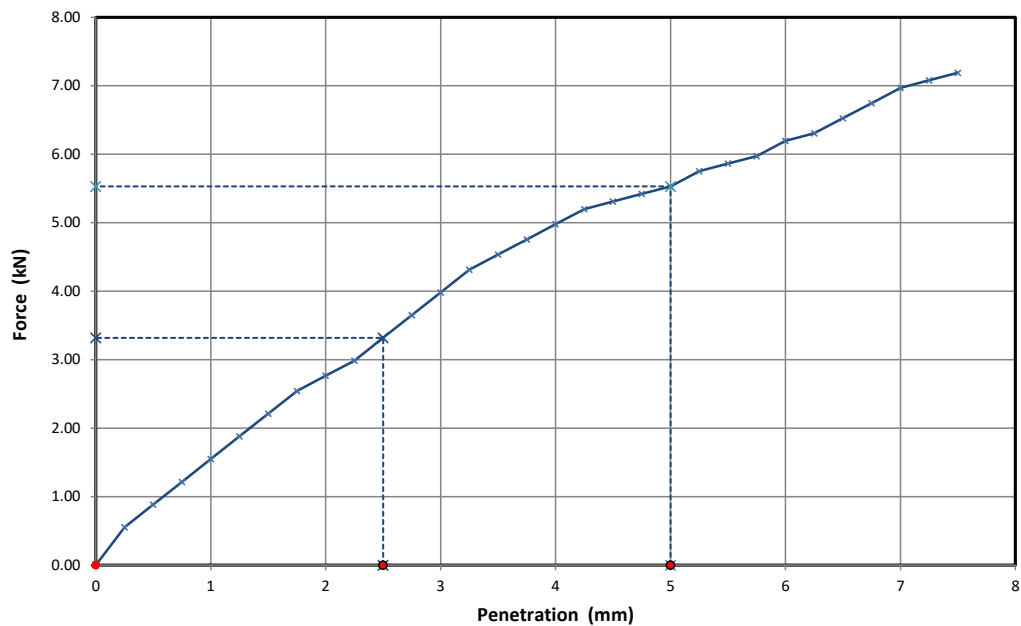
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.88
Remarks	

CBR Test Values			
2.5mm Top	6.100	2.5mm Bottom	
5mm Top	5.6	5mm Bottom	
CBR Value %	6.1	CBR Value %	

Operator
Conal



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP44
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	0.80
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	2	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	14
Moisture Top (%)	14
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.01
Dry Density (Mg/m3)	1.77

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	

CBR Test Values			
2.5mm Top	25.000	2.5mm Bottom	
5mm Top	28	5mm Bottom	
CBR Value %	28	CBR Value %	

Operator
Conal





California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7

Contract Number 62358

Borehole/Pit No. TP44

Project Name Horton Heath

Sample No.

Soil Description *See Sample Description Sheet

Depth Top 1.00

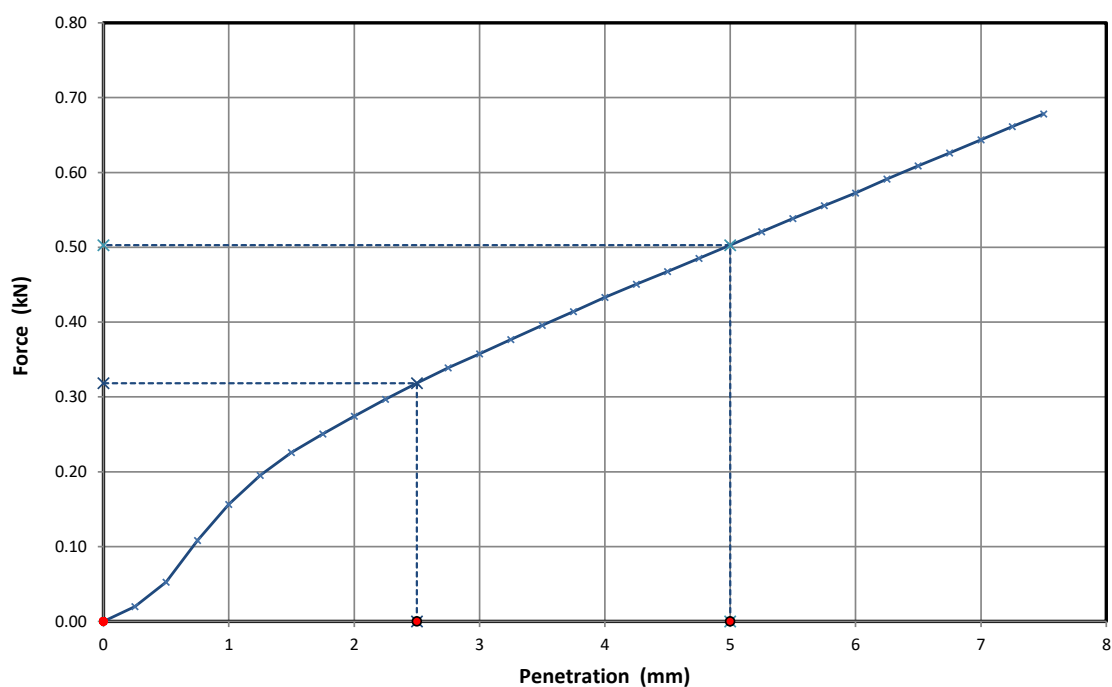
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 17/11/2022



Initial Sample Conditions	
Moisture Content (%)	15
Moisture Top (%)	20
Moisture Bottom (%)	
Bulk Density (Mg/m ³)	2.04
Dry Density (Mg/m ³)	1.77

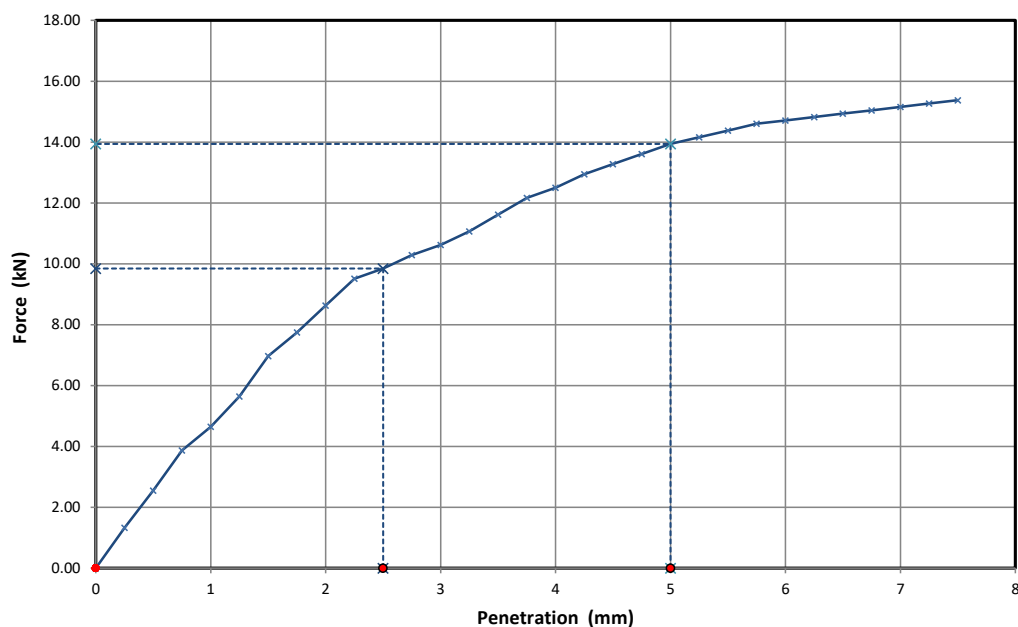
Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	1.11
Remarks	

CBR Test Values			
2.5mm Top	2.4	2.5mm Bottom	
5mm Top	2.5	5mm Bottom	
CBR Value %	2.5	CBR Value %	

Operator
Conor



	California Bearing Ratio BS 1377: Part 4: 1990 Clause 7	Contract Number	62358
		Borehole/Pit No.	TP45
Project Name	Horton Heath	Sample No.	2
Soil Description	*See Sample Description Sheet	Depth Top	0.50
Compaction Method	2.5 Kg Rammer	Depth Base	
Retained 20mm (%)	4	Sample Type	B
Date Tested	21/11/2022		



Initial Sample Conditions	
Moisture Content (%)	12
Moisture Top (%)	12
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.10
Dry Density (Mg/m3)	1.87

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	N/A
Swelling (mm)	N/A
Remarks	5 % Lime

CBR Test Values			
2.5mm Top	75.000	2.5mm Bottom	
5mm Top	70	5mm Bottom	
CBR Value %	75	CBR Value %	

Operator
Conal





California Bearing Ratio
BS 1377: Part 4: 1990 Clause 7

Contract Number 62358

Borehole/Pit No. TP45

Project Name Horton Heath

Sample No.

Soil Description *See Sample Description Sheet

Depth Top 1.00

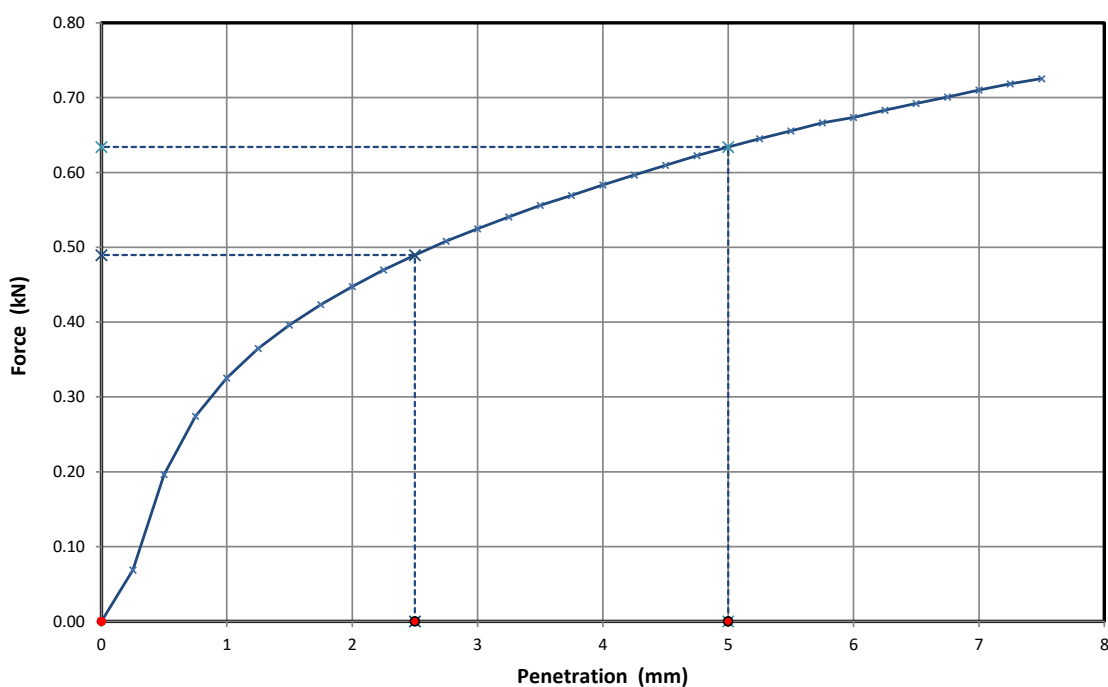
Compaction Method 2.5 Kg Rammer

Depth Base

Retained 20mm (%) 0

Sample Type B

Date Tested 17/11/2022



Initial Sample Conditions	
Moisture Content (%)	23
Moisture Top (%)	25
Moisture Bottom (%)	
Bulk Density (Mg/m3)	2.01
Dry Density (Mg/m3)	1.64

Specified Testing Parameters	
Surcharge (Kg)	2
Soaking Time (hours)	96
Swelling (mm)	0.66
Remarks	

CBR Test Values			
2.5mm Top	3.7	2.5mm Bottom	
5mm Top	3.2	5mm Bottom	
CBR Value %	3.7	CBR Value %	

Operator
Conal

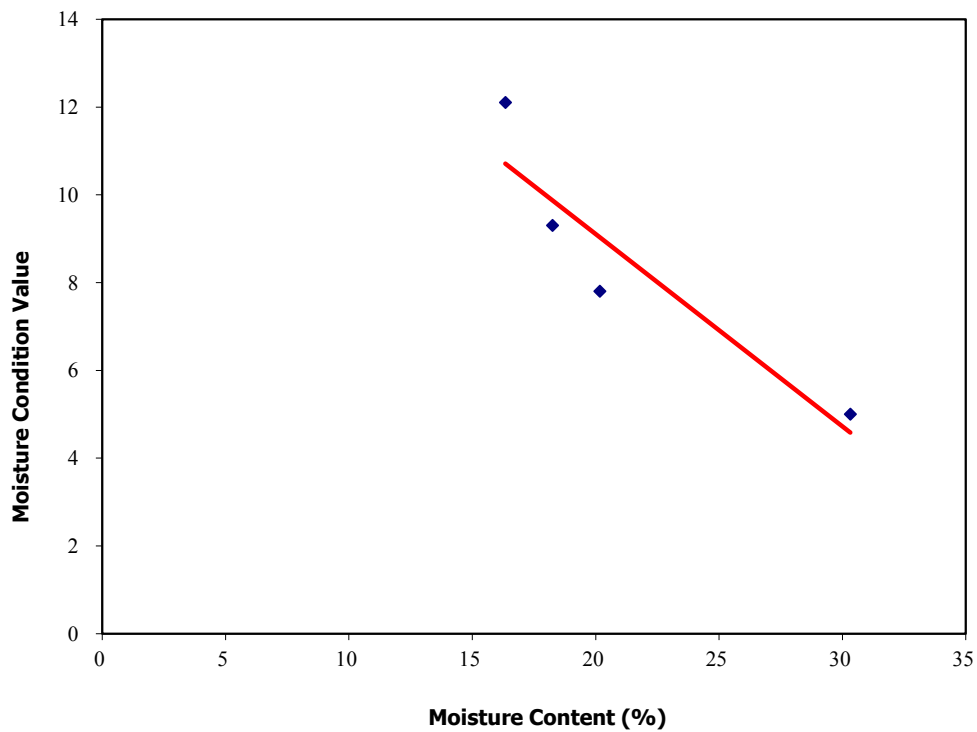


Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref: 5019962
Project Name: Horton Heath
Contract Number: 62358
Hole Number: SA02
Sample Number: 2
Depth Top(m): 1.00
Depth Bottom(m): 0.00
Sample Type: B
Date Tested: 23/11/2022
Operator: Conal

Initial Moisture Content (%):	30
Single/Separate Samples Tested:	Single
Material Retained on the 20mm BS Test Sieve (%):	0



Test Results.

Test Number.	1	2	3	4	5
Moisture Content (%).	16	18	20	30	0.0
MCV	12.1	9.3	7.8	5.0	0.0

* reading unobtainable.

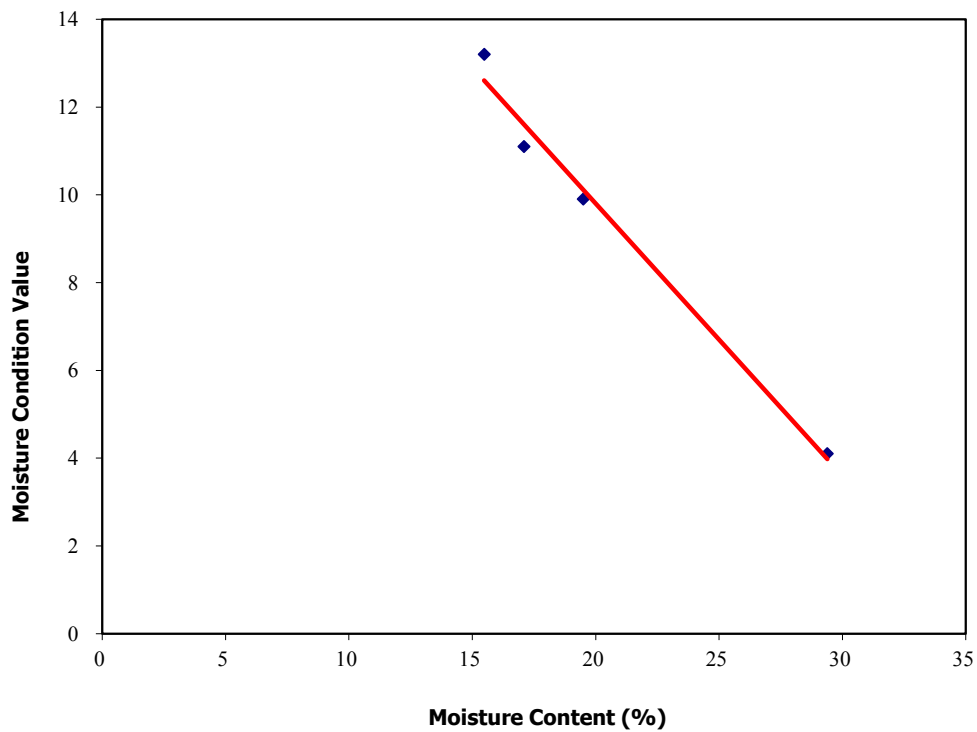


Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref: 5019962
Project Name: Horton Heath
Contract Number: 62358
Hole Number: SA06
Sample Number: 2
Depth Top(m): 1.50
Depth Bottom(m): 0.00
Sample Type: B
Date Tested: 23/11/2022
Operator: Conal

Initial Moisture Content (%):	29
Single/Separate Samples Tested:	Single
Material Retained on the 20mm BS Test Sieve (%):	0



Test Results.

Test Number.	1	2	3	4	5
Moisture Content (%).	15	17	20	29	0.0
MCV	13.2	11.1	9.9	4.1	0.0

* reading unobtainable.

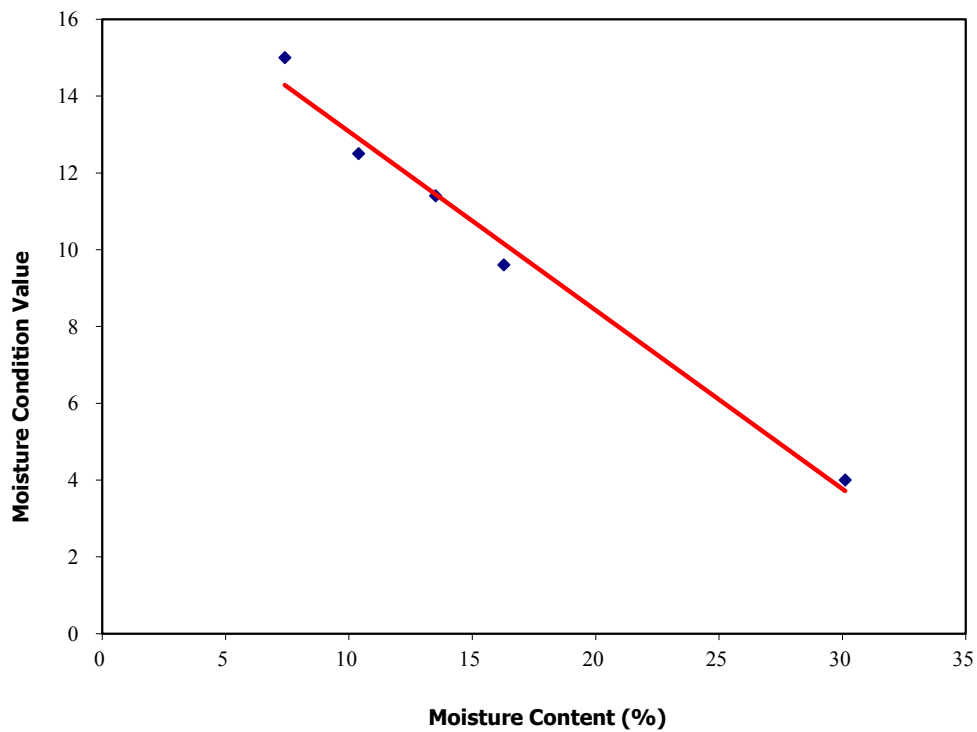


Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref: 5019962
Project Name: Horton Heath
Contract Number: 62358
Hole Number: SA08
Sample Number: 2
Depth Top(m): 1.20
Depth Bottom(m): 0.00
Sample Type: B
Date Tested: 23/11/2022
Operator: Conal

Initial Moisture Content (%):	30
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	0



Test Results.

Test Number.	1	2	3	4	5
Moisture Content (%).	7.4	10	14	16	30
MCV	15.0	12.5	11.4	9.6	4.0

* reading unobtainable.

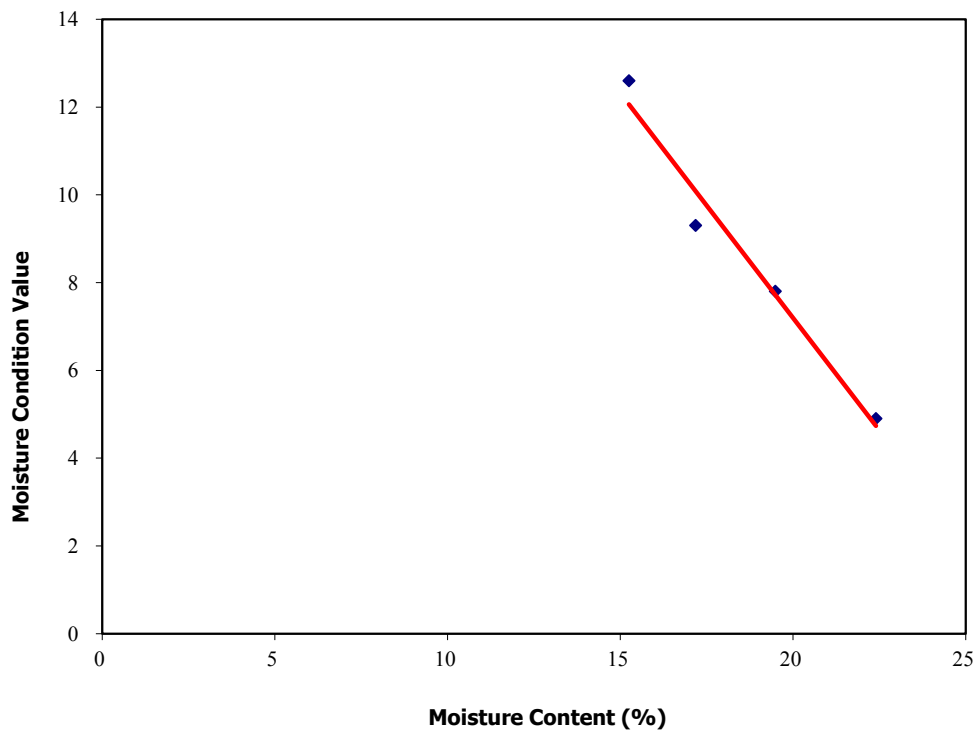


Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref: 5019962
Project Name: Horton Heath
Contract Number: 62358
Hole Number: SA10
Sample Number: 2
Depth Top(m): 1.20
Depth Bottom(m): 0.00
Sample Type: B
Date Tested: 23/11/2022
Operator: Conal

Initial Moisture Content (%):	19
Single/Separate Samples Tested:	Single
Material Retained on the 20mm BS Test Sieve (%):	0



Test Results.

Test Number.	1	2	3	4	5
Moisture Content (%).	15	17	19	22	0.0
MCV	12.6	9.3	7.8	4.9	0.0

* reading unobtainable.

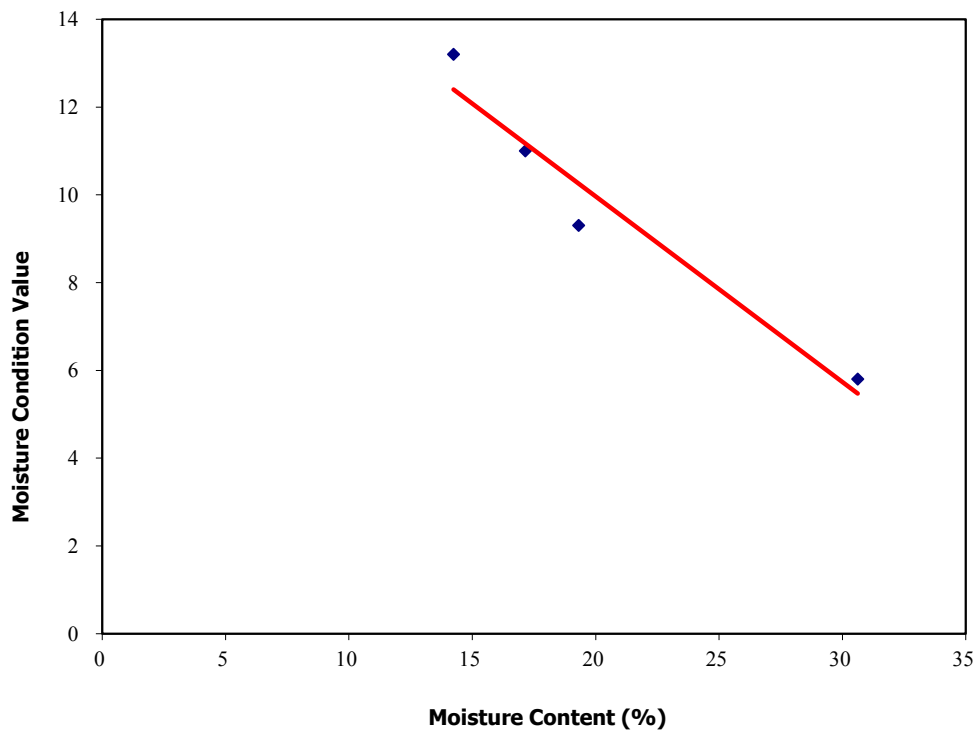


Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref: 5019962
Project Name: Horton Heath
Contract Number: 62358
Hole Number: TP03
Sample Number: 2
Depth Top(m): 0.50
Depth Bottom(m): 0.00
Sample Type: B
Date Tested: 23/11/2022
Operator: Conal

Initial Moisture Content (%):	31
Single/Separate Samples Tested:	Single
Material Retained on the 20mm BS Test Sieve (%):	0



Test Results.

Test Number.	1	2	3	4	5
Moisture Content (%).	14	17	19	31	0.0
MCV	13.2	11.0	9.3	5.8	0.0

* reading unobtainable.

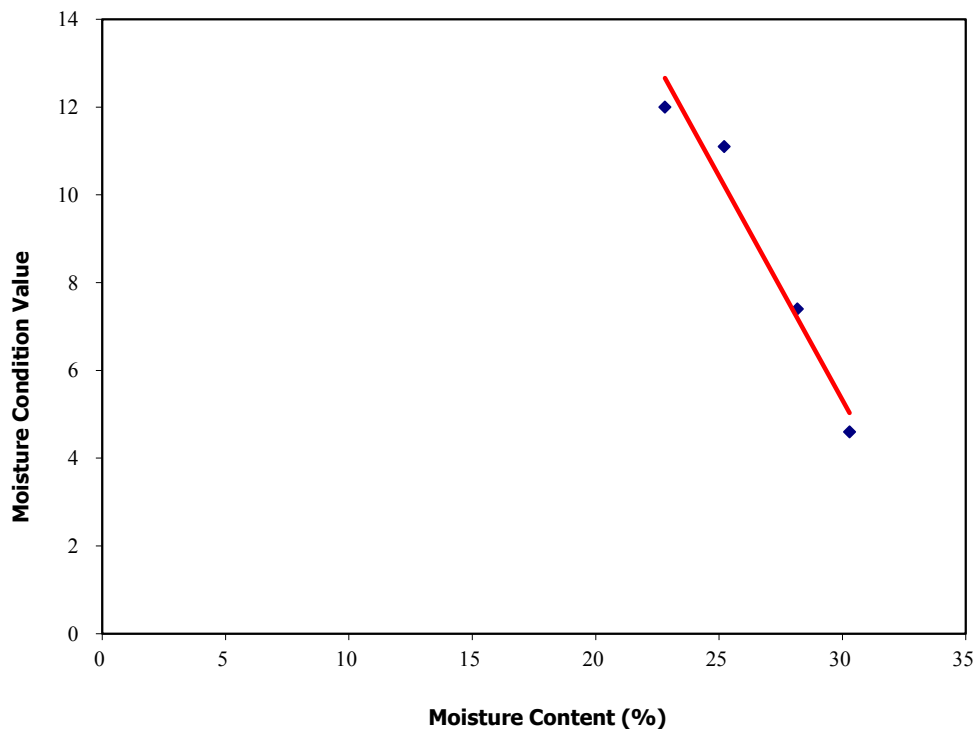


Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref: 5019962
Project Name: Horton Heath
Contract Number: 62358
Hole Number: TP13
Sample Number: 2
Depth Top(m): 0.60
Depth Bottom(m): 0.00
Sample Type: B
Date Tested: 23/11/2022
Operator: Conal

Initial Moisture Content (%):	23
Single/Separate Samples Tested:	Single
Material Retained on the 20mm BS Test Sieve (%):	0



Test Results.

Test Number.	1	2	3	4	5
Moisture Content (%).	23	25	28	30	0.0
MCV	12.0	11.1	7.4	4.6	0.0

* reading unobtainable.

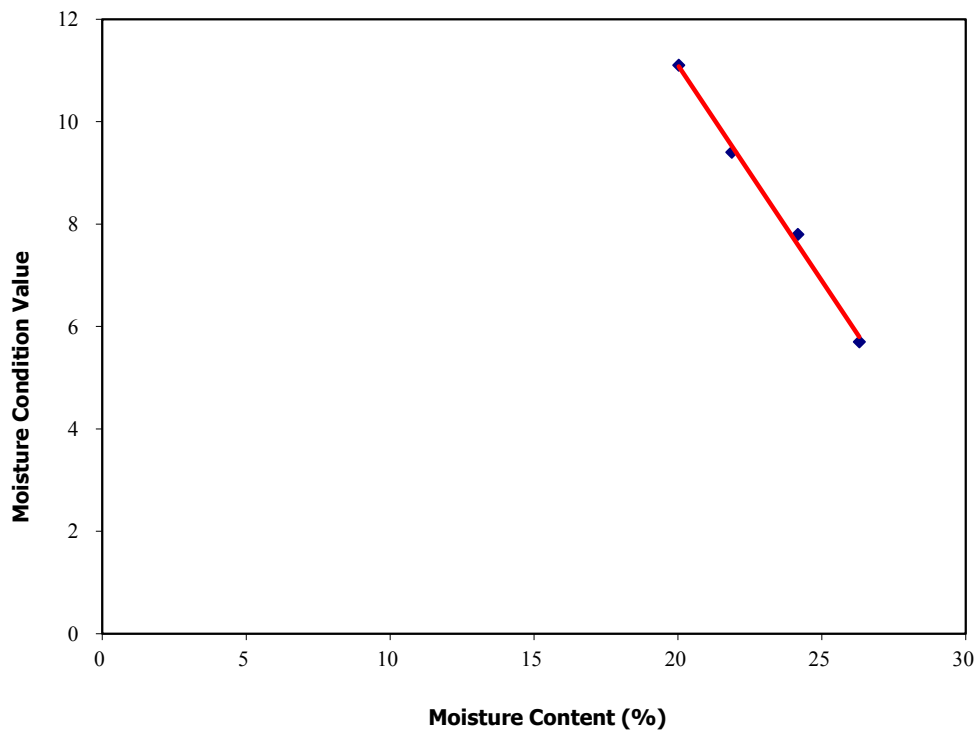


Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref: 5019962
Project Name: Horton Heath
Contract Number: 62358
Hole Number: TP20
Sample Number: 2
Depth Top(m): 0.50
Depth Bottom(m): 0.00
Sample Type: B
Date Tested: 23/11/2022
Operator: Conal

Initial Moisture Content (%):	22
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	6



Test Results.

Test Number.	1	2	3	4	5
Moisture Content (%).	20	22	24	26	0.0
MCV	11.1	9.4	7.8	5.7	0.0

* reading unobtainable.

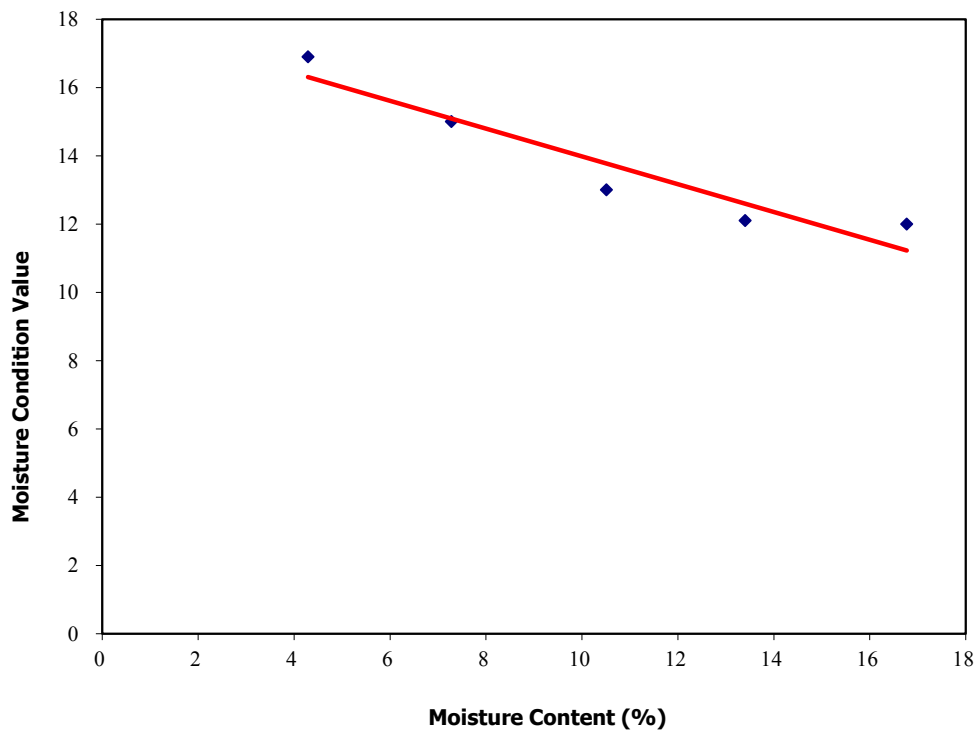


Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref: 5019962
Project Name: Horton Heath
Contract Number: 62358
Hole Number: TP24
Sample Number: 2
Depth Top(m): 0.50
Depth Bottom(m): 0.00
Sample Type: B
Date Tested: 23/11/2022
Operator: Conal

Initial Moisture Content (%):	17
Single/Separate Samples Tested:	Single
Material Retained on the 20mm BS Test Sieve (%):	1



Test Results.

Test Number.	1	2	3	4	5
Moisture Content (%).	4.3	7.3	11	13	17
MCV	16.9	15.0	13.0	12.1	12.0

* reading unobtainable.

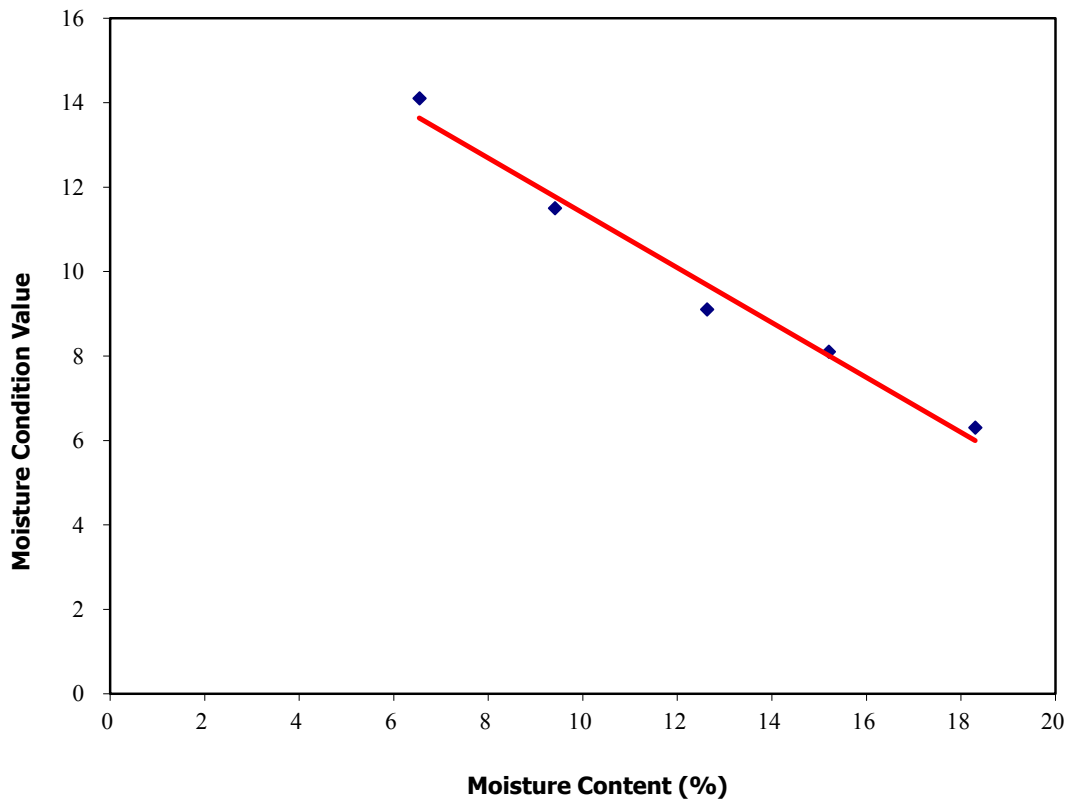


Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref: 5019962
Project Name: Horton Heath
Contract Number: 62358
Hole Number: TP26
Sample Number: 2
Depth Top(m): 0.50
Depth Bottom(m): 0.00
Sample Type B
Date Tested: 23/11/2022
Operator: Conal

Initial Moisture Content (%):	13
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	3



Test Results.

Test Number.	1	2	3	4	5
Moisture Content (%).	6.5	9.4	13	15	18
MCV	14.1	11.5	9.1	8.1	6.3

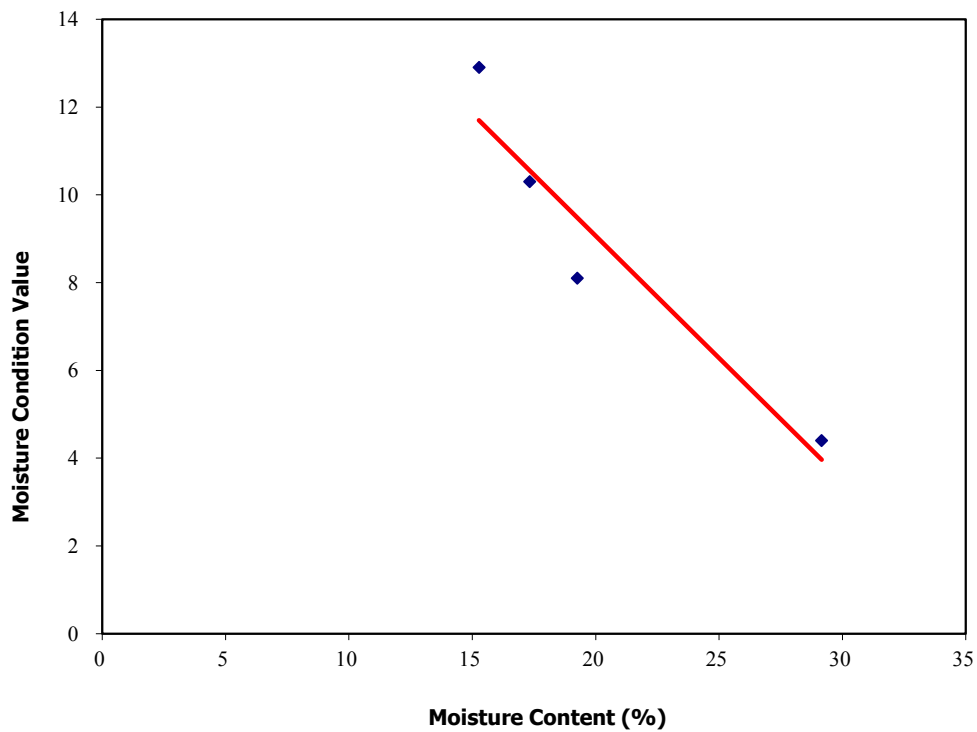
* reading unobtainable.

Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref: 5019962
Project Name: Horton Heath
Contract Number: 62358
Hole Number: TP33
Sample Number: 2
Depth Top(m): 0.70
Depth Bottom(m): 0.00
Sample Type: B
Date Tested: 23/11/2022
Operator: Conal

Initial Moisture Content (%):	29
Single/Separate Samples Tested:	Single
Material Retained on the 20mm BS Test Sieve (%):	0



Test Results.

Test Number.	1	2	3	4	5
Moisture Content (%).	15	17	19	29	0.0
MCV	12.9	10.3	8.1	4.4	0.0

* reading unobtainable.

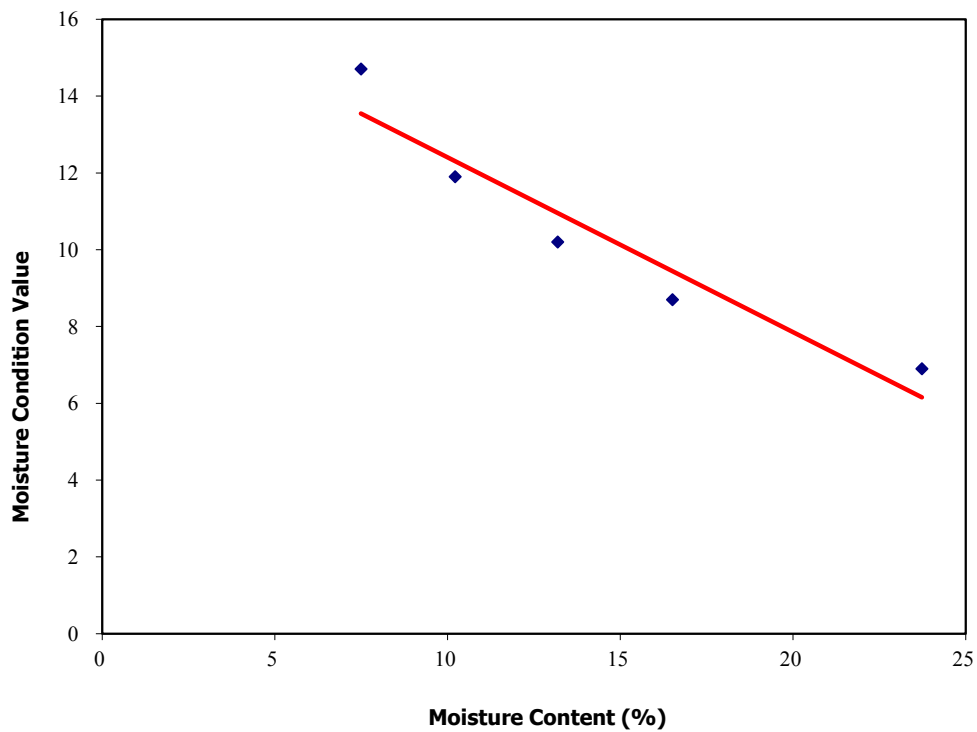


Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref: 5019962
Project Name: Horton Heath
Contract Number: 62358
Hole Number: TP39
Sample Number: 2
Depth Top(m): 0.70
Depth Bottom(m): 0.00
Sample Type: B
Date Tested: 23/11/2022
Operator: Conal

Initial Moisture Content (%):	24
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	0



Test Results.

Test Number.	1	2	3	4	5
Moisture Content (%).	7.5	10	13	17	24
MCV	14.7	11.9	10.2	8.7	6.9

* reading unobtainable.

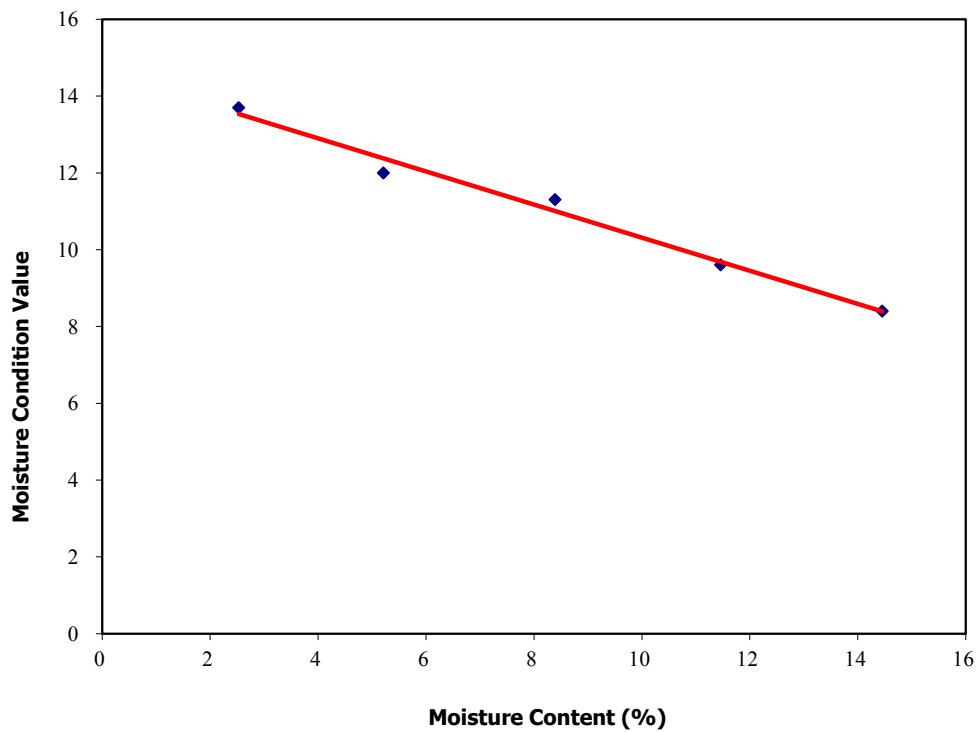


Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref: 5019962
Project Name: Horton Heath
Contract Number: 62358
Hole Number: TP40
Sample Number: 2
Depth Top(m): 0.60
Depth Bottom(m): 0.00
Sample Type: B
Date Tested: 23/11/2022
Operator: Conal

Initial Moisture Content (%):	8.4
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	0



Test Results.

Test Number.	1	2	3	4	5
Moisture Content (%).	2.5	5.2	8.4	11	14
MCV	13.7	12.0	11.3	9.6	8.4

* reading unobtainable.

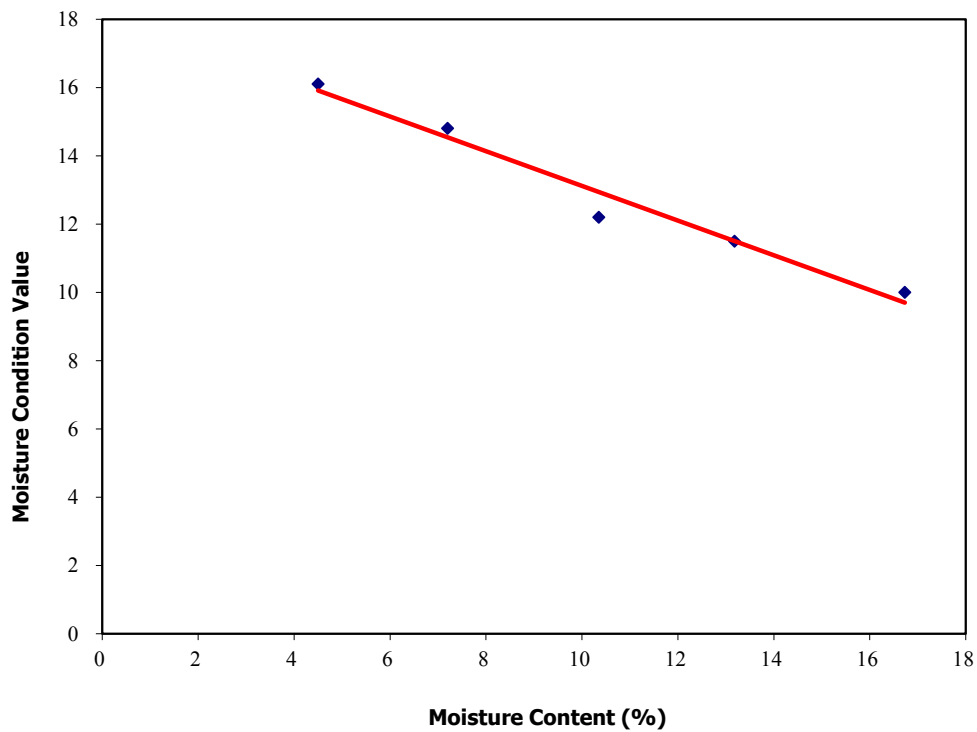


Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref: 5019962
Project Name: Horton Heath
Contract Number: 62358
Hole Number: TP41
Sample Number: 2
Depth Top(m): 0.40
Depth Bottom(m): 0.00
Sample Type: B
Date Tested: 23/11/2022
Operator: Conal

Initial Moisture Content (%):	17
Single/Separate Samples Tested:	Single
Material Retained on the 20mm BS Test Sieve (%):	0



Test Results.

Test Number.	1	2	3	4	5
Moisture Content (%).	4.5	7.2	10	13	17
MCV	16.1	14.8	12.2	11.5	10.0

* reading unobtainable.

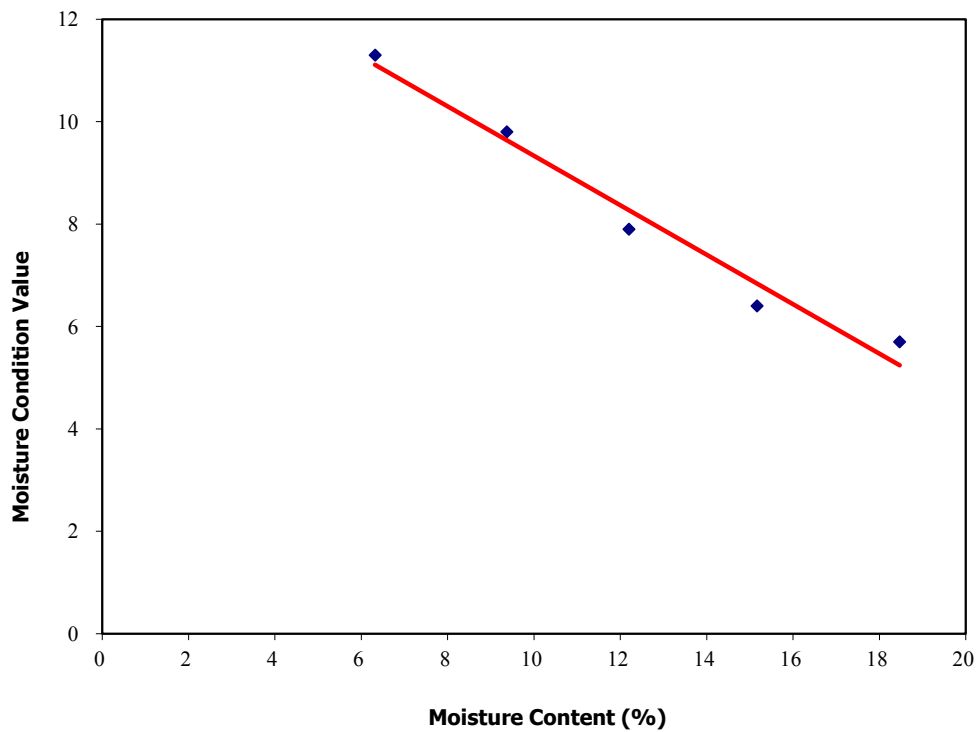


Moisture Condition Value Calibration

BS 1377:Part 4:1990

Client ref: 5019962
Project Name: Horton Heath
Contract Number: 62358
Hole Number: TP45
Sample Number: 2
Depth Top(m): 0.50
Depth Bottom(m): 0.00
Sample Type: B
Date Tested: 23/11/2022
Operator: Conal

Initial Moisture Content (%):	18
Single/Separate Samples Tested.	Single
Material Retained on the 20mm BS Test Sieve (%):	4



Test Results.

Test Number.	1	2	3	4	5
Moisture Content (%).	6.3	9.4	12	15	18
MCV	11.3	9.8	7.9	6.4	5.7

* reading unobtainable.





ANALYTICAL TEST REPORT

Contract no: 115951

Contract name: Horton Heath

Client reference: 5019962

Clients name: Geo Site and Testing Services

Clients address: Unit 3 and 4 Heol Aur
Dafen Industrial Estate, Dafen
Llanelli, Carmarthenshire
SA14 8QN

Samples received: 17 November 2022

Analysis started: 17 November 2022

Analysis completed: 29 November 2022

Report issued: 29 November 2022

Key

U	UKAS accredited test
M	MCERTS & UKAS accredited test
\$	Test carried out by an approved subcontractor
I/S	Insufficient sample to carry out test
N/S	Sample not suitable for testing

Approved by:

Abbie Neasham-Bourn
Senior Reporting Administrator

Chemtech Environmental Limited

SOILS

Lab number			115951-1	115951-2	115951-3	115951-4	115951-5	115951-6
Sample id			SA01	SA02	SA03	SA04	SA05	SA06
Depth (m)			2.00	1.00	1.50	0.30	1.50	1.50
Sample Type			B2	B2	B2	B2	B2	B2
Date sampled			-	-	-	-	-	-
Test	Method	Units						
pH	CE004 ^U	units	4.1	6.2	4.9	5.6	6.7	6.9
Subcontracted analysis								
Sulphate (2:1 water soluble)	\$	mg/l SO ₄	32	24	< 20	< 20	100	21
Sulphate (acid extractable)	\$	% w/w SO ₄	0.06	0.02	0.02	0.02	0.04	< 0.02
Sulphur (total)	\$	% w/w S	0.02	< 0.01	0.10	0.02	0.02	< 0.01

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SOILS

Lab number			115951-7	115951-8	115951-9	115951-10	115951-11	115951-12
Sample id			SA07	SA08	SA09	SA10	SA11	TP03
Depth (m)			1.70	1.20	1.30	1.20	1.00	0.50
Sample Type			B2	B2	B2	B2	B2	B2
Date sampled			-	-	-	-	-	-
Test	Method	Units						
pH	CE004 ^U	units	7.0	6.9	6.5	7.0	6.9	6.9
Subcontracted analysis								
Sulphate (2:1 water soluble)	\$	mg/l SO ₄	< 20	23	30	< 20	< 20	< 20
Sulphate (acid extractable)	\$	% w/w SO ₄	< 0.02	0.02	0.07	0.03	0.03	0.03
Sulphur (total)	\$	% w/w S	< 0.01	0.02	0.03	0.01	0.01	0.01

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SOILS

Lab number			115951-13	115951-14	115951-15	115951-16	115951-17	115951-18
Sample id			TP09	TP13	TP17	TP20	TP24	TP26
Depth (m)			0.10	0.60	0.50	0.50	0.50	0.50
Sample Type			B2	B2	B2	B2	B2	B2
Date sampled			-	-	-	-	-	-
Test	Method	Units						
pH	CE004 ^U	units	6.8	6.7	7.4	7.1	5.5	7.3
Subcontracted analysis								
Sulphate (2:1 water soluble)	\$	mg/l SO ₄	< 20	< 20	< 20	26	< 20	< 20
Sulphate (acid extractable)	\$	% w/w SO ₄	0.03	0.03	0.02	0.03	0.02	0.02
Sulphur (total)	\$	% w/w S	0.01	0.01	0.02	0.02	0.01	0.02

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SOILS

Lab number			115951-19	115951-20	115951-21	115951-22	115951-23	115951-24
Sample id			TP31	TP32	TP33	TP34	TP39	TP40
Depth (m)			0.50	0.40	0.70	0.80	0.70	0.60
Sample Type			B2	B2	B2	B2	B2	B2
Date sampled			-	-	-	-	-	-
Test	Method	Units						
pH	CE004 ^U	units	6.6	6.4	6.9	6.8	7.1	7.5
Subcontracted analysis								
Sulphate (2:1 water soluble)	\$	mg/l SO ₄	< 20	< 20	< 20	< 20	23	34
Sulphate (acid extractable)	\$	% w/w SO ₄	0.02	< 0.02	0.02	0.02	0.02	0.03
Sulphur (total)	\$	% w/w S	0.02	0.02	0.02	< 0.01	< 0.01	< 0.01

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SOILS

Lab number			115951-25	115951-26	115951-27	115951-28
Sample id			TP41	TP43	TP44	TP45
Depth (m)			0.40	0.60	0.80	0.50
Sample Type			B2	B2	B2	B2
Date sampled			-	-	-	-
Test	Method	Units				
pH	CE004 ^U	units	7.4	7.1	6.5	6.7
Subcontracted analysis						
Sulphate (2:1 water soluble)	\$	mg/l SO ₄	< 20	< 20	< 20	< 20
Sulphate (acid extractable)	\$	% w/w SO ₄	< 0.02	0.02	< 0.02	0.02
Sulphur (total)	\$	% w/w S	< 0.01	0.01	0.01	0.08

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METHOD DETAILS

METHOD	SOILS	METHOD SUMMARY	SAMPLE	STATUS	LOD	UNITS
CE004	pH	Based on BS 1377, pH Meter	As received	U	-	units
\$	Sulphate (2:1 water soluble)	Details on request	Dry		20	mg/l SO ₄
\$	Sulphate (acid extractable)	Details on request	Dry		0.02	% w/w SO ₄
\$	Sulphur (total)	Details on request	Dry		0.01	% w/w S

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DEVIATING SAMPLE INFORMATION

Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.

For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.

Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

Key

N	No (not deviating sample)
Y	Yes (deviating sample)
NSD	Sampling date not provided
NST	Sampling time not provided (waters only)
EHT	Sample exceeded holding time(s)
IC	Sample not received in appropriate containers
HP	Headspace present in sample container
NCF	Sample not chemically fixed (where appropriate)
OR	Other (specify)

Lab ref	Sample id	Depth (m)	Deviating	Tests (Reason for deviation)
115951-1	SA01	2.00	Y	All (NSD)
115951-2	SA02	1.00	Y	All (NSD)
115951-3	SA03	1.50	Y	All (NSD)
115951-4	SA04	0.30	Y	All (NSD)
115951-5	SA05	1.50	Y	All (NSD)
115951-6	SA06	1.50	Y	All (NSD)
115951-7	SA07	1.70	Y	All (NSD)
115951-8	SA08	1.20	Y	All (NSD)
115951-9	SA09	1.30	Y	All (NSD)
115951-10	SA10	1.20	Y	All (NSD)
115951-11	SA11	1.00	Y	All (NSD)
115951-12	TP03	0.50	Y	All (NSD)
115951-13	TP09	0.10	Y	All (NSD)
115951-14	TP13	0.60	Y	All (NSD)
115951-15	TP17	0.50	Y	All (NSD)
115951-16	TP20	0.50	Y	All (NSD)
115951-17	TP24	0.50	Y	All (NSD)
115951-18	TP26	0.50	Y	All (NSD)
115951-19	TP31	0.50	Y	All (NSD)
115951-20	TP32	0.40	Y	All (NSD)
115951-21	TP33	0.70	Y	All (NSD)
115951-22	TP34	0.80	Y	All (NSD)
115951-23	TP39	0.70	Y	All (NSD)
115951-24	TP40	0.60	Y	All (NSD)
115951-25	TP41	0.40	Y	All (NSD)
115951-26	TP43	0.60	Y	All (NSD)
115951-27	TP44	0.80	Y	All (NSD)
115951-28	TP45	0.50	Y	All (NSD)

Chemtech Environmental Limited

ADDITIONAL INFORMATION

Notes

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

Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling.

All testing carried out at Unit 6 Parkhead, Stanley, DH9 7YB, except for subcontracted testing.

Methods, procedures and performance data are available on request.

Results reported herein relate only to the material supplied to the laboratory.

This report shall not be reproduced except in full, without prior written approval.

Samples will be disposed of 4 weeks from initial receipt unless otherwise instructed.

For soils and solids, all results are reported on a dry basis. Samples dried at no more than 30°C in a drying cabinet.

Analytical results are inclusive of stones, where applicable.



Rhys Andrews
Ridge
Partnership House
Moorside Road
Winchester
SO23 7RX

Derwentside Environmental Testing Services Ltd
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410

DETS Report No: 22-09079

Site Reference: Horton Heath

Project / Job Ref: 5019962

Order No: 5019962-21186

Sample Receipt Date: 01/11/2022

Sample Scheduled Date: 01/11/2022

Report Issue Number: 1

Reporting Date: 15/11/2022

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.

For Topsoil and WAC analysis the expanded uncertainty measurement should be considered while evaluating results against compliance values.



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BS3882 Topsoil Suite							
DETS Report No: 22-09079		Date Sampled	26/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	SA01				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.10				
Reporting Date: 15/11/2022		DETS Sample No	618519				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	26.3	5 - 35			
Silt Content ^(S)	%	N/a	39.0	0 - 65			
Sand Content ^(S)	%	N/a	34.7	30 - 85			
Textural Class ^(S)	N/a	N/a	Clay Loam	-			
Loss on Ignition	%	< 0.01	11.0	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	5.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	4.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	6.5	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	12	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	160	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	130	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0		> 7.0
Zinc ^{MU}	mg/kg	< 3	29	< 200	< 200		< 300
Copper ^{MU}	mg/kg	< 4	13	< 100	< 135		< 200
Nickel ^{MU}	mg/kg	< 3	< 3	< 60	< 75		< 110
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	43				
Available Calcium ^(S)	mg/l	< 1	2500				
Electrical Conductivity	uS/cm	< 5	1900	3300			
OVERALL COMPLIANCY				N	N	Y	N
Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion							
Stated limits are for guidance only and DETS Ltd cannot be held responsible for any discrepancies with current legislation							
M Denotes MCERTS accredited test							
U Denotes ISO17025 accredited test							
Subcontracted analysis ^(S)							



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BS3882 Topsoil Suite							
DETS Report No: 22-09079		Date Sampled	26/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	SA02				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.20				
Reporting Date: 15/11/2022		DETS Sample No	618520				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	18.2	5 - 35			
Silt Content ^(S)	%	N/a	33.3	0 - 65			
Sand Content ^(S)	%	N/a	48.5	30 - 85			
Textural Class ^(S)	N/a	N/a	Sandy Silt Loam	-			
Loss on Ignition	%	< 0.01	10.0	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	1.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	0.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	7.2	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	13	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	25	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	36	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0		> 7.0
Zinc ^{MU}	mg/kg	< 3	31	< 200	< 200		< 300
Copper ^{MU}	mg/kg	< 4	12	< 100	< 135		< 200
Nickel ^{MU}	mg/kg	< 3	< 3	< 60	< 75		< 110
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	19				
Available Calcium ^(S)	mg/l	< 1	1000				
Electrical Conductivity	uS/cm	< 5	2000	3300			
OVERALL COMPLIANCY				N	N	Y	N
Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion							
Stated limits are for guidance only and DETS Ltd cannot be held responsible for any discrepancies with current legislation							
M Denotes MCERTS accredited test							
U Denotes ISO17025 accredited test							
Subcontracted analysis ^(S)							



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BS3882 Topsoil Suite							
DETS Report No: 22-09079		Date Sampled	27/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	SA03				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.20				
Reporting Date: 15/11/2022		DETS Sample No	618521				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	21.0	5 - 35			
Silt Content ^(S)	%	N/a	36.0	0 - 65			
Sand Content ^(S)	%	N/a	43.0	30 - 85			
Textural Class ^(S)	N/a	N/a	Clay Loam	-			
Loss on Ignition	%	< 0.01	4.10	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	0.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	0.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	6.8	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	7	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	88	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	75	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0	> 7.0	
Zinc ^{MU}	mg/kg	< 3	35	< 200	< 200	< 300	
Copper ^{MU}	mg/kg	< 4	11	< 100	< 135	< 200	
Nickel ^{MU}	mg/kg	< 3	8	< 60	< 75	< 110	
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	30				
Available Calcium ^(S)	mg/l	< 1	2400				
Electrical Conductivity	uS/cm	< 5	1900	3300			
OVERALL COMPLIANCY				N	N	Y	N
Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion							
Stated limits are for guidance only and DETS Ltd cannot be held responsible for any discrepancies with current legislation							
M Denotes MCERTS accredited test							
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Subcontracted analysis ^(S)							



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BS3882 Topsoil Suite							
DETS Report No: 22-09079		Date Sampled	26/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	SA04				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.20				
Reporting Date: 15/11/2022		DETS Sample No	618522				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	25.8	5 - 35			
Silt Content ^(S)	%	N/a	39.2	0 - 65			
Sand Content ^(S)	%	N/a	35.0	30 - 85			
Textural Class ^(S)	N/a	N/a	Clay Loam	-			
Loss on Ignition	%	< 0.01	8.40	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	3.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	0.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	5.8	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	0.31	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	23	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	110	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	150	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	18.0	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0		> 7.0
Zinc ^{MU}	mg/kg	< 3	37	< 200	< 200		< 300
Copper ^{MU}	mg/kg	< 4	14	< 100	< 135		< 200
Nickel ^{MU}	mg/kg	< 3	4	< 60	< 75		< 110
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	32				
Available Calcium ^(S)	mg/l	< 1	1300				
Electrical Conductivity	uS/cm	< 5	1800	3300			
OVERALL COMPLIANCY				N	N	N	N
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BS3882 Topsoil Suite							
DETS Report No: 22-09079		Date Sampled	27/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	SA05				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.20				
Reporting Date: 15/11/2022		DETS Sample No	618523				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	29.9	5 - 35			
Silt Content ^(S)	%	N/a	47.4	0 - 65			
Sand Content ^(S)	%	N/a	22.7	30 - 85			
Textural Class ^(S)	N/a	N/a	Clay Loam	-			
Loss on Ignition	%	< 0.01	11.1	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
Coarse Fragment Content	%	N/a	3.0	5 - 20	5 - 30	2 - 20	5 - 20
				0 - 30	0 - 30	0 - 30	0 - 30
				0 - 10	0 - 10	0 - 10	0 - 10
>2mm ^(S)	%	N/a	3.0	0	0	0	0
>20mm ^(S)	%	N/a	0.0	0	0	0	0
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	6.0	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	26	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	140	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	120	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0	> 7.0	
Zinc ^{MU}	mg/kg	< 3	66	< 200	< 200	< 300	
Copper ^{MU}	mg/kg	< 4	19	< 100	< 135	< 200	
Nickel ^{MU}	mg/kg	< 3	7	< 60	< 75	< 110	
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	36				
Available Calcium ^(S)	mg/l	< 1	1700				
Electrical Conductivity	uS/cm	< 5	2000	3300			
OVERALL COMPLIANCY				N	N	N	N
Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion							
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DETS Report No: 22-09079		Date Sampled	25/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	SA06				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.20				
Reporting Date: 15/11/2022		DETS Sample No	618524				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	25.5	5 - 35			
Silt Content ^(S)	%	N/a	37.8	0 - 65			
Sand Content ^(S)	%	N/a	36.7	30 - 85			
Textural Class ^(S)	N/a	N/a	Clay Loam	-			
Loss on Ignition	%	< 0.01	5.60	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	2.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	0.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	7.0	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	32	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	120	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	60	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0		> 7.0
Zinc ^{MU}	mg/kg	< 3	42	< 200	< 200		< 300
Copper ^{MU}	mg/kg	< 4	13	< 100	< 135		< 200
Nickel ^{MU}	mg/kg	< 3	6	< 60	< 75		< 110
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	21				
Available Calcium ^(S)	mg/l	< 1	1100				
Electrical Conductivity	uS/cm	< 5	2000	3300			
OVERALL COMPLIANCY				N	N	N	N
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DETS Report No: 22-09079		Date Sampled	25/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	SA08				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.20				
Reporting Date: 15/11/2022		DETS Sample No	618525				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	16.9	5 - 35			
Silt Content ^(S)	%	N/a	28.1	0 - 65			
Sand Content ^(S)	%	N/a	55.0	30 - 85			
Textural Class ^(S)	N/a	N/a	Sandy Loam	-			
Loss on Ignition	%	< 0.01	7.60	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	11.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	5.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	7.0	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	45	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	110	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	68	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0		> 7.0
Zinc ^{MU}	mg/kg	< 3	31	< 200	< 200		< 300
Copper ^{MU}	mg/kg	< 4	13	< 100	< 135		< 200
Nickel ^{MU}	mg/kg	< 3	5	< 60	< 75		< 110
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	35				
Available Calcium ^(S)	mg/l	< 1	1200				
Electrical Conductivity	uS/cm	< 5	2100	3300			
OVERALL COMPLIANCY				N	N	N	N
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BS3882 Topsoil Suite							
DETS Report No: 22-09079		Date Sampled	26/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	SA09				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.15				
Reporting Date: 15/11/2022		DETS Sample No	618526				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	16.2	5 - 35			
Silt Content ^(S)	%	N/a	27.3	0 - 65			
Sand Content ^(S)	%	N/a	56.5	30 - 85			
Textural Class ^(S)	N/a	N/a	Clay Loam	-			
Loss on Ignition	%	< 0.01	5.20	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
Coarse Fragment Content	%	N/a	1.0	5 - 20	5 - 30	2 - 20	5 - 20
				0 - 30	0 - 30	0 - 30	0 - 30
				0 - 10	0 - 10	0 - 10	0 - 10
>2mm ^(S)	%	N/a	1.0	0	0	0	0
>20mm ^(S)	%	N/a	0.0	0	0	0	0
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	6.5	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	38	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	140	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	92	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0	> 7.0	
Zinc ^{MU}	mg/kg	< 3	38	< 200	< 200	< 300	
Copper ^{MU}	mg/kg	< 4	13	< 100	< 135	< 200	
Nickel ^{MU}	mg/kg	< 3	4	< 60	< 75	< 110	
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	43				
Available Calcium ^(S)	mg/l	< 1	2000				
Electrical Conductivity	uS/cm	< 5	1900	3300			
OVERALL COMPLIANCY				N	N	N	N
Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion							
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BS3882 Topsoil Suite							
DETS Report No: 22-09079		Date Sampled	26/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	SA10				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.10				
Reporting Date: 15/11/2022		DETS Sample No	618527				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	22.2	5 - 35			
Silt Content ^(S)	%	N/a	36.4	0 - 65			
Sand Content ^(S)	%	N/a	41.4	30 - 85			
Textural Class ^(S)	N/a	N/a	Clay Loam	-			
Loss on Ignition	%	< 0.01	3.50	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	1.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	0.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	6.1	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	8	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	58	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	64	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0	> 7.0	
Zinc ^{MU}	mg/kg	< 3	28	< 200	< 200	< 300	
Copper ^{MU}	mg/kg	< 4	7	< 100	< 135	< 200	
Nickel ^{MU}	mg/kg	< 3	7	< 60	< 75	< 110	
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	24				
Available Calcium ^(S)	mg/l	< 1	1000				
Electrical Conductivity	uS/cm	< 5	1900	3300			
OVERALL COMPLIANCY				N	N	Y	N
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BS3882 Topsoil Suite							
DETS Report No: 22-09079		Date Sampled	26/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	SA11				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.20				
Reporting Date: 15/11/2022		DETS Sample No	618528				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	27.3	5 - 35			
Silt Content ^(S)	%	N/a	45.4	0 - 65			
Sand Content ^(S)	%	N/a	27.3	30 - 85			
Textural Class ^(S)	N/a	N/a	Sandy Loam	-			
Loss on Ignition	%	< 0.01	5.20	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	45.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	33.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	5.7	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	0.16	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	17	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	59	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	60	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	21.0	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0	> 7.0	
Zinc ^{MU}	mg/kg	< 3	37	< 200	< 200	< 300	
Copper ^{MU}	mg/kg	< 4	13	< 100	< 135	< 200	
Nickel ^{MU}	mg/kg	< 3	7	< 60	< 75	< 110	
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	26				
Available Calcium ^(S)	mg/l	< 1	930				
Electrical Conductivity	uS/cm	< 5	2000	3300			
OVERALL COMPLIANCY				N	N	N	N
Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion							
Stated limits are for guidance only and DETS Ltd cannot be held responsible for any discrepancies with current legislation							
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Subcontracted analysis ^(S)							



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BS3882 Topsoil Suite							
DETS Report No: 22-09079		Date Sampled	28/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	TP03				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.50				
Reporting Date: 15/11/2022		DETS Sample No	618529				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	22.2	5 - 35			
Silt Content ^(S)	%	N/a	42.9	0 - 65			
Sand Content ^(S)	%	N/a	34.9	30 - 85			
Textural Class ^(S)	N/a	N/a	Clay Loam	-			
Loss on Ignition	%	< 0.01	6.50	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	37.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	33.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	6.2	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	10	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	37	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	44	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0		> 7.0
Zinc ^{MU}	mg/kg	< 3	44	< 200	< 200	< 300	
Copper ^{MU}	mg/kg	< 4	9	< 100	< 135	< 200	
Nickel ^{MU}	mg/kg	< 3	4	< 60	< 75	< 110	
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	23				
Available Calcium ^(S)	mg/l	< 1	880				
Electrical Conductivity	uS/cm	< 5	1900	3300			
OVERALL COMPLIANCY				N	N	N	N
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BS3882 Topsoil Suite							
DETS Report No: 22-09079		Date Sampled	28/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	TP13				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.20				
Reporting Date: 15/11/2022		DETS Sample No	618530				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	21.6	5 - 35			
Silt Content ^(S)	%	N/a	39.8	0 - 65			
Sand Content ^(S)	%	N/a	38.6	30 - 85			
Textural Class ^(S)	N/a	N/a	Clay Loam	-			
Loss on Ignition	%	< 0.01	4.90	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	17.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	10.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	6.3	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	7	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	63	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	55	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0	> 7.0	
Zinc ^{MU}	mg/kg	< 3	32	< 200	< 200	< 300	
Copper ^{MU}	mg/kg	< 4	9	< 100	< 135	< 200	
Nickel ^{MU}	mg/kg	< 3	< 3	< 60	< 75	< 110	
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	32				
Available Calcium ^(S)	mg/l	< 1	1700				
Electrical Conductivity	uS/cm	< 5	2000	3300			
OVERALL COMPLIANCY				N	N	Y	N
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DETS Report No: 22-09079		Date Sampled	28/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	TP20				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.20				
Reporting Date: 15/11/2022		DETS Sample No	618531				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	23.3	5 - 35			
Silt Content ^(S)	%	N/a	39.0	0 - 65			
Sand Content ^(S)	%	N/a	37.7	30 - 85			
Textural Class ^(S)	N/a	N/a	Clay Loam	-			
Loss on Ignition	%	< 0.01	4.90	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	23.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	13.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	6.9	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	10	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	180	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	81	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0	> 7.0	
Zinc ^{MU}	mg/kg	< 3	49	< 200	< 200	< 300	
Copper ^{MU}	mg/kg	< 4	17	< 100	< 135	< 200	
Nickel ^{MU}	mg/kg	< 3	< 3	< 60	< 75	< 110	
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	28				
Available Calcium ^(S)	mg/l	< 1	1400				
Electrical Conductivity	uS/cm	< 5	2000	3300			
OVERALL COMPLIANCY				N	N	N	N
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DETS Report No: 22-09079		Date Sampled	28/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	TP24				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.10				
Reporting Date: 15/11/2022		DETS Sample No	618532				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	30.9	5 - 35			
Silt Content ^(S)	%	N/a	44.7	0 - 65			
Sand Content ^(S)	%	N/a	24.4	30 - 85			
Textural Class ^(S)	N/a	N/a	Clay Loam	-			
Loss on Ignition	%	< 0.01	5.10	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
Coarse Fragment Content	%	N/a	6.0	5 - 20	5 - 30	2 - 20	5 - 20
				>2mm ^(S)	>20mm ^(S)	>50mm ^(S)	pH ^{MU}
				0 - 30	0 - 10	0	pH Units
>2mm ^(S)	%	N/a	6.0	0 - 30	0 - 10	0	N/a
>20mm ^(S)	%	N/a	0.0	0 - 10	0 - 10	0	5.8
>50mm ^(S)	%	N/a	0.0	0	0	0	5.5 - 8.5
pH ^{MU}	pH Units	N/a	5.8	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	9	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	130	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	110	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0	> 7.0	
Zinc ^{MU}	mg/kg	< 3	25	< 200	< 200	< 300	
Copper ^{MU}	mg/kg	< 4	10	< 100	< 135	< 200	
Nickel ^{MU}	mg/kg	< 3	< 3	< 60	< 75	< 110	
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	24				
Available Calcium ^(S)	mg/l	< 1	860				
Electrical Conductivity	uS/cm	< 5	1900	3300			
OVERALL COMPLIANCY				N	N	N	N
Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion							
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DETS Report No: 22-09079		Date Sampled	28/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	TP26				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.20				
Reporting Date: 15/11/2022		DETS Sample No	618533				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	24.5	5 - 35			
Silt Content ^(S)	%	N/a	35.7	0 - 65			
Sand Content ^(S)	%	N/a	39.8	30 - 85			
Textural Class ^(S)	N/a	N/a	Clay Loam	-			
Loss on Ignition	%	< 0.01	4.40	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	2.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	0.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	7.2	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	15	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	100	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	66	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0	> 7.0	
Zinc ^{MU}	mg/kg	< 3	31	< 200	< 200	< 300	
Copper ^{MU}	mg/kg	< 4	36	< 100	< 135	< 200	
Nickel ^{MU}	mg/kg	< 3	< 3	< 60	< 75	< 110	
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	21				
Available Calcium ^(S)	mg/l	< 1	1300				
Electrical Conductivity	uS/cm	< 5	2000	3300			
OVERALL COMPLIANCY				N	N	Y	N
Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion							
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BS3882 Topsoil Suite							
DETS Report No: 22-09079		Date Sampled	25/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	TP31				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.10				
Reporting Date: 15/11/2022		DETS Sample No	618534				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	15.5	5 - 35			
Silt Content ^(S)	%	N/a	26.8	0 - 65			
Sand Content ^(S)	%	N/a	57.7	30 - 85			
Textural Class ^(S)	N/a	N/a	Sandy Loam	-			
Loss on Ignition	%	< 0.01	6.90	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	3.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	0.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	7.1	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	62	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	98	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	46	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0		> 7.0
Zinc ^{MU}	mg/kg	< 3	42	< 200	< 200		< 300
Copper ^{MU}	mg/kg	< 4	11	< 100	< 135		< 200
Nickel ^{MU}	mg/kg	< 3	4	< 60	< 75		< 110
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	17				
Available Calcium ^(S)	mg/l	< 1	910				
Electrical Conductivity	uS/cm	< 5	2000	3300			
OVERALL COMPLIANCY				N	N	N	N
Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion							
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DETS Report No: 22-09079		Date Sampled	25/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	TP33				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.30				
Reporting Date: 15/11/2022		DETS Sample No	618535				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	21.4	5 - 35			
Silt Content ^(S)	%	N/a	38.8	0 - 65			
Sand Content ^(S)	%	N/a	39.8	30 - 85			
Textural Class ^(S)	N/a	N/a	Clay Loam	-			
Loss on Ignition	%	< 0.01	6.00	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	2.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	0.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	7.6	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	34	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	270	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	93	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0		> 7.0
Zinc ^{MU}	mg/kg	< 3	43	< 200	< 200		< 300
Copper ^{MU}	mg/kg	< 4	14	< 100	< 135		< 200
Nickel ^{MU}	mg/kg	< 3	4	< 60	< 75		< 110
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	27				
Available Calcium ^(S)	mg/l	< 1	2000				
Electrical Conductivity	uS/cm	< 5	2000	3300			
OVERALL COMPLIANCY				N	N	N	N
Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion							
Stated limits are for guidance only and DETS Ltd cannot be held responsible for any discrepancies with current legislation							
M Denotes MCERTS accredited test							
U Denotes ISO17025 accredited test							
Subcontracted analysis ^(S)							



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BS3882 Topsoil Suite							
DETS Report No: 22-09079		Date Sampled	25/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	TP40				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.10				
Reporting Date: 15/11/2022		DETS Sample No	618536				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	15.3	5 - 35			
Silt Content ^(S)	%	N/a	27.6	0 - 65			
Sand Content ^(S)	%	N/a	57.1	30 - 85			
Textural Class ^(S)	N/a	N/a	Sandy Loam	-			
Loss on Ignition	%	< 0.01	5.10	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
Coarse Fragment Content	%	N/a	2.0	5 - 20	5 - 30	2 - 20	5 - 20
				>2mm ^(S)	>20mm ^(S)	>50mm ^(S)	pH ^{MU}
				0 - 30	0 - 10	0	pH Units
>2mm ^(S)	%	N/a	2.0	0 - 30	0 - 10	0	N/a
>20mm ^(S)	%	N/a	0.0	0 - 10	0 - 10	0	7.0
>50mm ^(S)	%	N/a	0.0	0	0	0	5.5 - 8.5
pH ^{MU}	pH Units	N/a	7.0	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	40	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	230	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	78	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0	> 7.0	
Zinc ^{MU}	mg/kg	< 3	31	< 200	< 200	< 300	
Copper ^{MU}	mg/kg	< 4	9	< 100	< 135	< 200	
Nickel ^{MU}	mg/kg	< 3	< 3	< 60	< 75	< 110	
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	20				
Available Calcium ^(S)	mg/l	< 1	1400				
Electrical Conductivity	uS/cm	< 5	2100	3300			
OVERALL COMPLIANCY				N	N	N	N
Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion							
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Subcontracted analysis ^(S)							



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BS3882 Topsoil Suite							
DETS Report No: 22-09079		Date Sampled	25/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	TP42				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.30				
Reporting Date: 15/11/2022		DETS Sample No	618537				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	16.3	5 - 35			
Silt Content ^(S)	%	N/a	29.6	0 - 65			
Sand Content ^(S)	%	N/a	54.1	30 - 85			
Textural Class ^(S)	N/a	N/a	Sandy Loam	-			
Loss on Ignition	%	< 0.01	7.60	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	2.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	0.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	7.0	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	23	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	140	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	88	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0		> 7.0
Zinc ^{MU}	mg/kg	< 3	38	< 200	< 200		< 300
Copper ^{MU}	mg/kg	< 4	10	< 100	< 135		< 200
Nickel ^{MU}	mg/kg	< 3	3	< 60	< 75		< 110
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	24				
Available Calcium ^(S)	mg/l	< 1	1600				
Electrical Conductivity	uS/cm	< 5	2100	3300			
OVERALL COMPLIANCY				N	N	N	N
Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion							
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Subcontracted analysis ^(S)							



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BS3882 Topsoil Suite							
DETS Report No: 22-09079		Date Sampled	25/10/2022	Compliance with Range			
Ridge		Time Sampled	None Supplied	Multipurpose	Acidic	Low Fertility	Calcareous
Site Reference: Horton Heath		TP / BH No	TP44				
Project / Job Ref: 5019962		Additional Refs	TS				
Order No: 5019962-21186		Depth (m)	0.20				
Reporting Date: 15/11/2022		DETS Sample No	618538				
Determinand	Reporting Unit	RL					
Soil Texture							
Clay Content ^(S)	%	N/a	13.4	5 - 35			
Silt Content ^(S)	%	N/a	29.3	0 - 65			
Sand Content ^(S)	%	N/a	57.3	30 - 85			
Textural Class ^(S)	N/a	N/a	Sandy Loam	-			
Loss on Ignition	%	< 0.01	7.60	Clay Content 5 - 20%			
				3 - 20	3 - 30	2 - 20	3 - 20
				Clay Content 20 - 35%			
				5 - 20	5 - 30	2 - 20	5 - 20
Coarse Fragment Content							
>2mm ^(S)	%	N/a	25.0	0 - 30	0 - 30	0 - 30	0 - 30
>20mm ^(S)	%	N/a	6.0	0 - 10	0 - 10	0 - 10	0 - 10
>50mm ^(S)	%	N/a	0.0	0	0	0	0
pH ^{MU}	pH Units	N/a	6.0	5.5 - 8.5	3.5 - 5.5	3.5 - 9.0	7.5 - 9.0
Carbonate	%	< 1.4	< 1.4				> 1
Available Plant Nutrients							
Total Nitrogen ^(S)	%	< 0.01	< 0.01	≥ 0.15	≥ 0.15		≥ 0.15
Phosphorus (Extractable) ^(S)	mg/l	< 3	12	16 - 140	16 - 140	≤ 15	16 - 140
Potassium (Extractable) ^(S)	mg/l	< 20	60	121 - 1500	121 - 1500		121 - 1500
Magnesium (Extractable) ^(S)	mg/l	< 1	47	51 - 600	51 - 600		51 - 600
Carbon / Nitrogen Ratio ^(S)	:1	< 0.1	< 0.1	< 20 : 1	< 20 : 1	< 20 : 1	< 20 : 1
Exchangeable Sodium ^(S)	%	< 0.1	< 0.1				
Phytotoxic Elements (by soil pH)				Multipurpose & Specific Purpose Topsoils at pH range			
				< 6.0	6.0 - 7.0		> 7.0
Zinc ^{MU}	mg/kg	< 3	26	< 200	< 200		< 300
Copper ^{MU}	mg/kg	< 4	6	< 100	< 135		< 200
Nickel ^{MU}	mg/kg	< 3	3	< 60	< 75		< 110
Visible Contaminants (Air Dried Soil)							
>2mm	%	N/a	0.0	< 0.5			
Plastics	%	N/a	0.00	< 0.25			
Sharps	%	N/a	0.0	0			
Additional Analytes							
Available Sodium ^(S)	mg/l	< 1	30				
Available Calcium ^(S)	mg/l	< 1	960				
Electrical Conductivity	uS/cm	< 5	1900	3300			
OVERALL COMPLIANCY				N	N	Y	N
Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion							
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Subcontracted analysis ^(S)							



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Soil Analysis Certificate - Sample Descriptions

DETS Report No: 22-09079	
Ridge	
Site Reference: Horton Heath	
Project / Job Ref: 5019962	
Order No: 5019962-21186	
Reporting Date: 15/11/2022	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
618519	SA01	TS	0.10	14.5	Brown sandy clay
618520	SA02	TS	0.20	19.1	Brown sandy clay
618521	SA03	TS	0.20	14.6	Brown sandy clay
618522	SA04	TS	0.20	19.2	Brown sandy clay with vegetation
618523	SA05	TS	0.20	25.5	Brown sandy clay with vegetation
618524	SA06	TS	0.20	17.2	Brown sandy clay
618525	SA08	TS	0.20	15.2	Brown sandy clay
618526	SA09	TS	0.15	14.3	Brown sandy clay with vegetation
618527	SA10	TS	0.10	11.9	Brown sandy clay with vegetation
618528	SA11	TS	0.20	16.5	Brown sandy clay
618529	TP03	TS	0.50	13.6	Brown sandy clay
618530	TP13	TS	0.20	12.7	Brown sandy clay with vegetation
618531	TP20	TS	0.20	14.1	Brown sandy clay with stones
618532	TP24	TS	0.10	11.9	Brown sandy clay
618533	TP26	TS	0.20	17	Brown sandy clay with vegetation
618534	TP31	TS	0.10	16.1	Brown sandy clay
618535	TP33	TS	0.30	16.2	Brown sandy clay
618536	TP40	TS	0.10	13.5	Brown sandy clay with stones
618537	TP42	TS	0.30	13.9	Brown sandy clay
618538	TP44	TS	0.20	13.5	Brown sandy clay with stones and vegetation

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

Insufficient Sample ^{1/5}

Unsuitable Sample ^{u/s}



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Soil Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 22-09079

Ridge

Site Reference: Horton Heath

Project / Job Ref: 5019962

Order No: 5019962-21186

Reporting Date: 15/11/2022

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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List of HWOL Acronyms and Operators

DETS Report No: 22-09079

Ridge

Site Reference: Horton Heath

Project / Job Ref: 5019962

Order No: 5019962-21186

Reporting Date: 15/11/2022

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total

Det - Acronym

Parameter	Matrix Type	Suite Reference	Expanded Uncertainty Measurement	Unit
TOC	Soil	BS EN 12457	12.1	%
Loss on Ignition	Soil	BS EN 12457	20.4	%
BTEX	Soil	BS EN 12457	14.0	%
Sum of PCBs	Soil	BS EN 12457	21.1	%
Mineral Oil	Soil	BS EN 12457	9.0	%
Total PAH	Soil	BS EN 12457	13.9	%
pH	Soil	BS EN 12457	0.248	Units
Acid Neutralisation Capacity	Soil	BS EN 12457	18.0	%
Arsenic	Leachate	BS EN 12457	15.9	%
Barium	Leachate	BS EN 12457	14.4	%
Cadmium	Leachate	BS EN 12457	12.6	%
Chromium	Leachate	BS EN 12457	13.4	%
Copper	Leachate	BS EN 12457	13.1	%
Mercury	Leachate	BS EN 12457	16.2	%
Molybdenum	Leachate	BS EN 12457	13.6	%
Nickel	Leachate	BS EN 12457	16.0	%
Lead	Leachate	BS EN 12457	12.4	%
Antimony	Leachate	BS EN 12457	14.6	%
Selenium	Leachate	BS EN 12457	16.5	%
Zinc	Leachate	BS EN 12457	14.5	%
Chloride	Leachate	BS EN 12457	17.0	%
Fluoride	Leachate	BS EN 12457	12.0	%
Sulphate	Leachate	BS EN 12457	25.1	%
TDS	Leachate	BS EN 12457	10.0	%
Phenol Index	Leachate	BS EN 12457	12.9	%
DOC	Leachate	BS EN 12457	10.0	%
Clay Content	Soil	BS 3882: 2015	15.0	%
Silt Content	Soil	BS 3882: 2015	14.0	%
Sand Content	Soil	BS 3882: 2015	13.0	%
Loss on Ignition	Soil	BS 3882: 2015	12.4	%
pH	Soil	BS 3882: 2015	0.248	Units
Carbonate	Soil	BS 3882: 2015	12.0	%
Total Nitrogen	Soil	BS 3882: 2015	12.0	%
Phosphorus (Extractable)	Soil	BS 3882: 2015	24.0	%
Potassium (Extractable)	Soil	BS 3882: 2015	20.0	%
Magnesium (Extractable)	Soil	BS 3882: 2015	26.0	%
Zinc	Soil	BS 3882: 2015	14.9	%
Copper	Soil	BS 3882: 2015	16.0	%
Nickel	Soil	BS 3882: 2015	17.7	%
Available Sodium	Soil	BS 3882: 2015	23.0	%
Available Calcium	Soil	BS 3882: 2015	23.0	%
Electrical Conductivity	Soil	BS 3882: 2015	10.0	%



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DETS Report No: 22-09433

Site Reference: Horton Heath

Project / Job Ref: 5019962

Order No: 5019962 -619885

Sample Receipt Date: 11/11/2022

Sample Scheduled Date: 11/11/2022

Report Issue Number: 1

Reporting Date: 17/11/2022

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.

For Topsoil and WAC analysis the expanded uncertainty measurement should be considered while evaluating results against compliance values.



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Soil Analysis Certificate						
DETS Report No: 22-09433	Date Sampled	03/11/22	03/11/22	03/11/22	03/11/22	03/11/22
Ridge	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Horton Heath	TP / BH No	SA01	SA03	SA04	SA06	SA07
Project / Job Ref: 5019962	Additional Refs	NAT	TS	NAT	TS	NAT
Order No: 5019962 -619885	Depth (m)	0.70	0.10	0.60	0.20	0.80
Reporting Date: 17/11/2022	DETS Sample No	619910	619911	619912	619913	619914

Determinand	Unit	RL	Accreditation					
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	6.9	7.3	6.3	5.0	7.2
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Organic Matter (SOM)	%	< 0.1	MCERTS	0.6	1.9	0.9	< 0.1	1.9
Arsenic (As)	mg/kg	< 2	MCERTS	9	11	9	4	4
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	19	12	20	10	9
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS	13	13	6	6	14
Lead (Pb)	mg/kg	< 3	MCERTS	12	34	9	12	22
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	< 3	5	7	5	4
Selenium (Se)	mg/kg	< 2	MCERTS	< 3	< 3	< 3	< 3	< 3
Zinc (Zn)	mg/kg	< 3	MCERTS	30	33	35	31	45
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						
DETS Report No: 22-09433	Date Sampled	03/11/22	03/11/22	03/11/22	03/11/22	03/11/22
Ridge	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Horton Heath	TP / BH No	SA09	SA11	TP03	TP13	TP20
Project / Job Ref: 5019962	Additional Refs	TS	NAT	TS	NAT	TS
Order No: 5019962 -619885	Depth (m)	0.30	0.90	0.20	0.80	0.20
Reporting Date: 17/11/2022	DETS Sample No	619915	619916	619917	619918	619919

Determinand	Unit	RL	Accreditation					
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	6.6	6.9	7.4	7.7	7.2
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Organic Matter (SOM)	%	< 0.1	MCERTS	1.5	0.4	1.8	< 0.1	3.2
Arsenic (As)	mg/kg	< 2	MCERTS	6	4	4	9	6
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	17	9	10	20	14
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS	7	5	10	9	13
Lead (Pb)	mg/kg	< 3	MCERTS	12	11	23	10	30
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	7	< 3	4	11	5
Selenium (Se)	mg/kg	< 2	MCERTS	< 3	< 3	< 3	< 3	< 3
Zinc (Zn)	mg/kg	< 3	MCERTS	37	12	37	40	46
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						
DETS Report No: 22-09433	Date Sampled	03/11/22	03/11/22	03/11/22	03/11/22	
Ridge	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	
Site Reference: Horton Heath	TP / BH No	TP24	TP28	TP40	TP43	
Project / Job Ref: 5019962	Additional Refs	NAT	TS	NAT	TS	
Order No: 5019962 -619885	Depth (m)	0.70	0.40	0.80	0.30	
Reporting Date: 17/11/2022	DETS Sample No	619920	619921	619922	619923	

Determinand	Unit	RL	Accreditation					
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	
pH	pH Units	N/a	MCERTS	6.7	7.2	7.2	7.3	
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	
Organic Matter (SOM)	%	< 0.1	MCERTS	0.5	1.2	1	1.7	
Arsenic (As)	mg/kg	< 2	MCERTS	6	5	4	4	
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (Cr)	mg/kg	< 2	MCERTS	9	16	8	9	
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	
Copper (Cu)	mg/kg	< 4	MCERTS	9	5	4	11	
Lead (Pb)	mg/kg	< 3	MCERTS	13	9	8	23	
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	
Nickel (Ni)	mg/kg	< 3	MCERTS	4	7	< 3	4	
Selenium (Se)	mg/kg	< 2	MCERTS	< 3	< 3	< 3	< 3	
Zinc (Zn)	mg/kg	< 3	MCERTS	15	28	8	38	
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 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 - Speciated PAHs						
DETS Report No: 22-09433	Date Sampled	03/11/22	03/11/22	03/11/22	03/11/22	03/11/22
Ridge	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Horton Heath	TP / BH No	SA01	SA03	SA04	SA06	SA07
Project / Job Ref: 5019962	Additional Refs	NAT	TS	NAT	TS	NAT
Order No: 5019962 -619885	Depth (m)	0.70	0.10	0.60	0.20	0.80
Reporting Date: 17/11/2022	DETS Sample No	619910	619911	619912	619913	619914

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	< 0.1	< 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	< 0.1	< 0.1	< 0.1	< 0.1
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 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	< 0.1	< 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: 22-09433	Date Sampled	03/11/22	03/11/22	03/11/22	03/11/22	03/11/22
Ridge	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Horton Heath	TP / BH No	SA09	SA11	TP03	TP13	TP20
Project / Job Ref: 5019962	Additional Refs	TS	NAT	TS	NAT	TS
Order No: 5019962 -619885	Depth (m)	0.30	0.90	0.20	0.80	0.20
Reporting Date: 17/11/2022	DETS Sample No	619915	619916	619917	619918	619919

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	< 0.1	< 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	< 0.1	< 0.1	< 0.1	< 0.1
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 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	< 0.1	< 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: 22-09433	Date Sampled	03/11/22	03/11/22	03/11/22	03/11/22	
Ridge	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	
Site Reference: Horton Heath	TP / BH No	TP24	TP28	TP40	TP43	
Project / Job Ref: 5019962	Additional Refs	NAT	TS	NAT	TS	
Order No: 5019962 -619885	Depth (m)	0.70	0.40	0.80	0.30	
Reporting Date: 17/11/2022	DETS Sample No	619920	619921	619922	619923	

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 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	
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 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	



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Soil Analysis Certificate - TPH CWG Banded

DETS Report No: 22-09433	Date Sampled	03/11/22	03/11/22	03/11/22	03/11/22	03/11/22
Ridge	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Horton Heath	TP / BH No	SA01	SA03	SA04	SA06	SA07
Project / Job Ref: 5019962	Additional Refs	NAT	TS	NAT	TS	NAT
Order No: 5019962-619885	Depth (m)	0.70	0.10	0.60	0.20	0.80
Reporting Date: 17/11/2022	DETS Sample No	619910	619911	619912	619913	619914

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6 : HS_1D_MS_AL	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C6 - C8 : HS_1D_MS_AL	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic >C8 - C10 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C10 - C12 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C12 - C16 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aliphatic >C16 - C21 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aliphatic >C21 - C34 : EH_CU_1D_AL	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Aliphatic (C5 - C34) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21	< 21	< 21	< 21	< 21
Aromatic >C5 - C7 : HS_1D_MS_AR	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic >C7 - C8 : HS_1D_MS_AR	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic >C8 - C10 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C10 - C12 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C12 - C16 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C16 - C21 : EH_CU_1D_AR	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aromatic >C21 - C35 : EH_CU_1D_AR	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Aromatic (C5 - C35) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	< 21	< 21	< 21	< 21	< 21
Total >C5 - C35 : HS_1D_MS+EH_CU_1D_Tot al	mg/kg	< 42	NONE	< 42	< 42	< 42	< 42	< 42



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Soil Analysis Certificate - TPH CWG Banded

DETS Report No: 22-09433	Date Sampled	03/11/22	03/11/22	03/11/22	03/11/22	03/11/22
Ridge	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Horton Heath	TP / BH No	SA09	SA11	TP03	TP13	TP20
Project / Job Ref: 5019962	Additional Refs	TS	NAT	TS	NAT	TS
Order No: 5019962-619885	Depth (m)	0.30	0.90	0.20	0.80	0.20
Reporting Date: 17/11/2022	DETS Sample No	619915	619916	619917	619918	619919

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6 : HS_1D_MS_AL	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C6 - C8 : HS_1D_MS_AL	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic >C8 - C10 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C10 - C12 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C12 - C16 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aliphatic >C16 - C21 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aliphatic >C21 - C34 : EH_CU_1D_AL	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Aliphatic (C5 - C34) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21	< 21	< 21	< 21	< 21
Aromatic >C5 - C7 : HS_1D_MS_AR	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic >C7 - C8 : HS_1D_MS_AR	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic >C8 - C10 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	7
Aromatic >C10 - C12 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C12 - C16 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C16 - C21 : EH_CU_1D_AR	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aromatic >C21 - C35 : EH_CU_1D_AR	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Aromatic (C5 - C35) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	< 21	< 21	< 21	< 21	< 21
Total >C5 - C35 : HS_1D_MS+EH_CU_1D_Tot al	mg/kg	< 42	NONE	< 42	< 42	< 42	< 42	< 42



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Soil Analysis Certificate - TPH CWG Banded

DETS Report No: 22-09433	Date Sampled	03/11/22	03/11/22	03/11/22	03/11/22
Ridge	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Horton Heath	TP / BH No	TP24	TP28	TP40	TP43
Project / Job Ref: 5019962	Additional Refs	NAT	TS	NAT	TS
Order No: 5019962-619885	Depth (m)	0.70	0.40	0.80	0.30
Reporting Date: 17/11/2022	DETS Sample No	619920	619921	619922	619923

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6 : HS_1D_MS_AL	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	
Aliphatic >C6 - C8 : HS_1D_MS_AL	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	
Aliphatic >C8 - C10 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
Aliphatic >C10 - C12 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
Aliphatic >C12 - C16 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	
Aliphatic >C16 - C21 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	
Aliphatic >C21 - C34 : EH_CU_1D_AL	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	
Aliphatic (C5 - C34) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21	< 21	< 21	< 21	
Aromatic >C5 - C7 : HS_1D_MS_AR	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	
Aromatic >C7 - C8 : HS_1D_MS_AR	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	
Aromatic >C8 - C10 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
Aromatic >C10 - C12 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
Aromatic >C12 - C16 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
Aromatic >C16 - C21 : EH_CU_1D_AR	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	
Aromatic >C21 - C35 : EH_CU_1D_AR	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	
Aromatic (C5 - C35) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	< 21	< 21	< 21	< 21	
Total >C5 - C35 : HS_1D_MS+EH_CU_1D_Tot al	mg/kg	< 42	NONE	< 42	< 42	< 42	< 42	



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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 22-09433	Date Sampled	03/11/22	03/11/22	03/11/22	03/11/22	03/11/22
Ridge	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Horton Heath	TP / BH No	SA01	SA03	SA04	SA06	SA07
Project / Job Ref: 5019962	Additional Refs	NAT	TS	NAT	TS	NAT
Order No: 5019962 -619885	Depth (m)	0.70	0.10	0.60	0.20	0.80
Reporting Date: 17/11/2022	DETS Sample No	619910	619911	619912	619913	619914

Determinand	Unit	RL	Accreditation					
Benzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Toluene : HS_1D_MS	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Ethylbenzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
p & m-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
o-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
MTBE : HS_1D_MS	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5



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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 22-09433	Date Sampled	03/11/22	03/11/22	03/11/22	03/11/22	03/11/22
Ridge	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Horton Heath	TP / BH No	SA09	SA11	TP03	TP13	TP20
Project / Job Ref: 5019962	Additional Refs	TS	NAT	TS	NAT	TS
Order No: 5019962 -619885	Depth (m)	0.30	0.90	0.20	0.80	0.20
Reporting Date: 17/11/2022	DETS Sample No	619915	619916	619917	619918	619919

Determinand	Unit	RL	Accreditation					
Benzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Toluene : HS_1D_MS	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Ethylbenzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
p & m-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
o-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
MTBE : HS_1D_MS	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5



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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 22-09433	Date Sampled	03/11/22	03/11/22	03/11/22	03/11/22	
Ridge	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	
Site Reference: Horton Heath	TP / BH No	TP24	TP28	TP40	TP43	
Project / Job Ref: 5019962	Additional Refs	NAT	TS	NAT	TS	
Order No: 5019962 -619885	Depth (m)	0.70	0.40	0.80	0.30	
Reporting Date: 17/11/2022	DETS Sample No	619920	619921	619922	619923	

Determinand	Unit	RL	Accreditation					
Benzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
Toluene : HS_1D_MS	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	
Ethylbenzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
p & m-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
o-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
MTBE : HS_1D_MS	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	



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Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2									
DETS Report No: 22-09433		Date Sampled	03/11/22		Inert Waste Landfill Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill Hazardous Waste Landfill				
Ridge		Time Sampled	None Supplied						
Site Reference: Horton Heath		TP / BH No	SA03						
Project / Job Ref: 5019962		Additional Refs	TS						
Order No: 5019962 -619885		Depth (m)	0.10						
Reporting Date: 17/11/2022		DETS Sample No	619911						
Determinand	Unit	MDL							
TOC ^{MU}	%	< 0.1	1.1						
Loss on Ignition	%	< 0.01	4.10						
BTEX ^{MU}	mg/kg	< 0.05	< 0.05						
Sum of PCBs	mg/kg	< 0.1	< 0.1						
Mineral Oil ^{MU}	mg/kg	< 10	< 10						
Total PAH ^{MU}	mg/kg	< 1.7	< 1.7						
pH ^{MU}	pH Units	N/a	7.3						
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1						
Eluate Analysis			10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)		
Arsenic ^U			< 0.01			< 0.1	0.5	2	25
Barium ^U			< 0.02			< 0.2	20	100	300
Cadmium ^U			< 0.0005			< 0.005	0.04	1	5
Chromium ^U			< 0.005			< 0.05	0.5	10	70
Copper ^U			< 0.01			< 0.1	2	50	100
Mercury ^U			< 0.0005			< 0.005	0.01	0.2	2
Molybdenum ^U			< 0.001			< 0.01	0.5	10	30
Nickel ^U			< 0.007			< 0.07	0.4	10	40
Lead ^U			< 0.005			< 0.05	0.5	10	50
Antimony ^U			< 0.005			< 0.05	0.06	0.7	5
Selenium ^U			< 0.005			< 0.05	0.1	0.5	7
Zinc ^U			0.023			0.23	4	50	200
Chloride ^U			4.3			43	800	15000	25000
Fluoride ^U			< 0.5			< 5	10	150	500
Sulphate ^U			6.0			60	1000	20000	50000
TDS			31			310	4000	60000	100000
Phenol Index			0.03			0.3	1	-	-
DOC			17.7			177	500	800	1000
Leach Test Information									
Sample Mass (kg)			0.11						
Dry Matter (%)			81.7						
Moisture (%)			22.4						
Stage 1									
Volume Eluate L10 (litres)			0.88						

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion

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Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2																																							
DETS Report No: 22-09433		Date Sampled	03/11/22		<table border="1"> <thead> <tr> <th colspan="3">Landfill Waste Acceptance Criteria Limits</th> </tr> <tr> <th>Inert Waste Landfill</th> <th>Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill</th> <th>Hazardous Waste Landfill</th> </tr> </thead> <tbody> <tr> <td>3%</td> <td>5%</td> <td>6%</td> </tr> <tr> <td>--</td> <td>--</td> <td>10%</td> </tr> <tr> <td>6</td> <td>--</td> <td>--</td> </tr> <tr> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>500</td> <td>--</td> <td>--</td> </tr> <tr> <td>100</td> <td>--</td> <td>--</td> </tr> <tr> <td>--</td> <td>>6</td> <td>--</td> </tr> <tr> <td>--</td> <td>To be evaluated</td> <td>To be evaluated</td> </tr> </tbody> </table>					Landfill Waste Acceptance Criteria Limits			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	3%	5%	6%	--	--	10%	6	--	--	1	--	--	500	--	--	100	--	--	--	>6	--	--	To be evaluated	To be evaluated
Landfill Waste Acceptance Criteria Limits																																							
Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill																																					
3%	5%	6%																																					
--	--	10%																																					
6	--	--																																					
1	--	--																																					
500	--	--																																					
100	--	--																																					
--	>6	--																																					
--	To be evaluated	To be evaluated																																					
Ridge		Time Sampled	None Supplied																																				
Site Reference: Horton Heath		TP / BH No	SA04																																				
Project / Job Ref: 5019962		Additional Refs	NAT																																				
Order No: 5019962 -619885		Depth (m)	0.60																																				
Reporting Date: 17/11/2022		DETS Sample No	619912																																				
Determinand	Unit	MDL																																					
TOC ^{MU}	%	< 0.1	0.5																																				
Loss on Ignition	%	< 0.01	7.30																																				
BTEX ^{MU}	mg/kg	< 0.05	< 0.05																																				
Sum of PCBs	mg/kg	< 0.1	< 0.1																																				
Mineral Oil ^{MU}	mg/kg	< 10	< 10																																				
Total PAH ^{MU}	mg/kg	< 1.7	< 1.7																																				
pH ^{MU}	pH Units	N/a	6.3																																				
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1																																				
Eluate Analysis			10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)																																
Arsenic ^U		< 0.01			< 0.1	0.5	2	25																															
Barium ^U		< 0.02			< 0.2	20	100	300																															
Cadmium ^U		< 0.0005			< 0.005	0.04	1	5																															
Chromium ^U		< 0.005			< 0.05	0.5	10	70																															
Copper ^U		< 0.01			< 0.1	2	50	100																															
Mercury ^U		< 0.0005			< 0.005	0.01	0.2	2																															
Molybdenum ^U		< 0.001			< 0.01	0.5	10	30																															
Nickel ^U		< 0.007			< 0.07	0.4	10	40																															
Lead ^U		< 0.005			< 0.05	0.5	10	50																															
Antimony ^U		< 0.005			< 0.05	0.06	0.7	5																															
Selenium ^U		< 0.005			< 0.05	0.1	0.5	7																															
Zinc ^U		0.027			0.27	4	50	200																															
Chloride ^U		2.2			22	800	15000	25000																															
Fluoride ^U		< 0.5			< 5	10	150	500																															
Sulphate ^U		2.9			29	1000	20000	50000																															
TDS		30			300	4000	60000	100000																															
Phenol Index		0.02			0.2	1	-	-																															
DOC		12.5			125	500	800	1000																															
Leach Test Information																																							
Sample Mass (kg)			0.11																																				
Dry Matter (%)			80																																				
Moisture (%)			25																																				
Stage 1																																							
Volume Eluate L10 (litres)			0.88																																				

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Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2									
DETS Report No: 22-09433		Date Sampled	03/11/22		Inert Waste Landfill Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill Hazardous Waste Landfill				
Ridge		Time Sampled	None Supplied						
Site Reference: Horton Heath		TP / BH No	SA06						
Project / Job Ref: 5019962		Additional Refs	TS						
Order No: 5019962 -619885		Depth (m)	0.20						
Reporting Date: 17/11/2022		DETS Sample No	619913						
Determinand	Unit	MDL			3% -- 6 1 500 100 -- -- 5% -- -- -- -- -- >6 To be evaluated 6% 10% -- -- -- -- -- To be evaluated				
TOC ^{MU}	%	< 0.1	< 0.1						
Loss on Ignition	%	< 0.01	3.90						
BTEX ^{MU}	mg/kg	< 0.05	< 0.05						
Sum of PCBs	mg/kg	< 0.1	< 0.1						
Mineral Oil ^{MU}	mg/kg	< 10	< 10						
Total PAH ^{MU}	mg/kg	< 1.7	< 1.7						
pH ^{MU}	pH Units	N/a	5.0						
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1						
Eluate Analysis			10:1 mg/l						
Arsenic ^U			< 0.01			< 0.1	0.5	2	25
Barium ^U			< 0.02			< 0.2	20	100	300
Cadmium ^U			< 0.0005			< 0.005	0.04	1	5
Chromium ^U			< 0.005			< 0.05	0.5	10	70
Copper ^U			< 0.01			< 0.1	2	50	100
Mercury ^U			< 0.0005			< 0.005	0.01	0.2	2
Molybdenum ^U			< 0.001			< 0.01	0.5	10	30
Nickel ^U			< 0.007			< 0.07	0.4	10	40
Lead ^U			< 0.005			< 0.05	0.5	10	50
Antimony ^U			< 0.005			< 0.05	0.06	0.7	5
Selenium ^U			< 0.005			< 0.05	0.1	0.5	7
Zinc ^U			0.023			0.23	4	50	200
Chloride ^U			5.3			53	800	15000	25000
Fluoride ^U			< 0.5			< 5	10	150	500
Sulphate ^U			3.6			36	1000	20000	50000
TDS			10			100	4000	60000	100000
Phenol Index			0.01			0.1	1	-	-
DOC			7.4			74.2	500	800	1000
Leach Test Information							Sample Mass (kg) 0.12 Dry Matter (%) 73.8 Moisture (%) 35.4		

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Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2									
DETS Report No: 22-09433		Date Sampled	03/11/22		Inert Waste Landfill Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill Hazardous Waste Landfill				
Ridge		Time Sampled	None Supplied						
Site Reference: Horton Heath		TP / BH No	SA07						
Project / Job Ref: 5019962		Additional Refs	NAT						
Order No: 5019962 -619885		Depth (m)	0.80						
Reporting Date: 17/11/2022		DETS Sample No	619914						
Determinand	Unit	MDL							
TOC ^{MU}	%	< 0.1	1.1						
Loss on Ignition	%	< 0.01	3.90						
BTEX ^{MU}	mg/kg	< 0.05	< 0.05						
Sum of PCBs	mg/kg	< 0.1	< 0.1						
Mineral Oil ^{MU}	mg/kg	< 10	< 10						
Total PAH ^{MU}	mg/kg	< 1.7	< 1.7						
pH ^{MU}	pH Units	N/a	7.2						
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1						
Eluate Analysis			10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)		
Arsenic ^U			< 0.01			< 0.1	0.5	2	25
Barium ^U			< 0.02			< 0.2	20	100	300
Cadmium ^U			< 0.0005			< 0.005	0.04	1	5
Chromium ^U			< 0.005			< 0.05	0.5	10	70
Copper ^U			< 0.01			< 0.1	2	50	100
Mercury ^U			< 0.0005			< 0.005	0.01	0.2	2
Molybdenum ^U			< 0.001			< 0.01	0.5	10	30
Nickel ^U			< 0.007			< 0.07	0.4	10	40
Lead ^U			< 0.005			< 0.05	0.5	10	50
Antimony ^U			< 0.005			< 0.05	0.06	0.7	5
Selenium ^U			< 0.005			< 0.05	0.1	0.5	7
Zinc ^U			0.026			0.26	4	50	200
Chloride ^U			2.7			27	800	15000	25000
Fluoride ^U			< 0.5			< 5	10	150	500
Sulphate ^U			4.9			49	1000	20000	50000
TDS			25			250	4000	60000	100000
Phenol Index			0.02			0.2	1	-	-
DOC			16.6			166	500	800	1000
Leach Test Information									
Sample Mass (kg)			0.11						
Dry Matter (%)			82.2						
Moisture (%)			21.8						
Stage 1									
Volume Eluate L10 (litres)			0.88						

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Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2									
DETS Report No: 22-09433		Date Sampled	03/11/22		Landfill Waste Acceptance Criteria Limits Inert Waste Landfill Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill Hazardous Waste Landfill				
Ridge		Time Sampled	None Supplied						
Site Reference: Horton Heath		TP / BH No	SA09						
Project / Job Ref: 5019962		Additional Refs	TS						
Order No: 5019962 -619885		Depth (m)	0.30						
Reporting Date: 17/11/2022		DETS Sample No	619915						
Determinand	Unit	MDL							
TOC ^{MU}	%	< 0.1	0.9						
Loss on Ignition	%	< 0.01	3.50						
BTEX ^{MU}	mg/kg	< 0.05	< 0.05						
Sum of PCBs	mg/kg	< 0.1	< 0.1						
Mineral Oil ^{MU}	mg/kg	< 10	< 10						
Total PAH ^{MU}	mg/kg	< 1.7	< 1.7						
pH ^{MU}	pH Units	N/a	6.6						
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1						
Eluate Analysis			10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)		
Arsenic ^U			< 0.01			< 0.1	0.5	2	25
Barium ^U			< 0.02			< 0.2	20	100	300
Cadmium ^U			< 0.0005			< 0.005	0.04	1	5
Chromium ^U			< 0.005			< 0.05	0.5	10	70
Copper ^U			< 0.01			< 0.1	2	50	100
Mercury ^U			< 0.0005			< 0.005	0.01	0.2	2
Molybdenum ^U			< 0.001			< 0.01	0.5	10	30
Nickel ^U			< 0.007			< 0.07	0.4	10	40
Lead ^U			< 0.005			< 0.05	0.5	10	50
Antimony ^U			< 0.005			< 0.05	0.06	0.7	5
Selenium ^U			< 0.005			< 0.05	0.1	0.5	7
Zinc ^U			0.023			0.23	4	50	200
Chloride ^U			29			29	800	15000	25000
Fluoride ^U			< 0.5			< 5	10	150	500
Sulphate ^U			3.1			31	1000	20000	50000
TDS			28			280	4000	60000	100000
Phenol Index			0.02			0.2	1	-	-
DOC			15.8			158	500	800	1000
Leach Test Information									
Sample Mass (kg)			0.11						
Dry Matter (%)			80.3						
Moisture (%)			24.6						
Stage 1									
Volume Eluate L10 (litres)			0.88						

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion

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Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2																																							
DETS Report No: 22-09433		Date Sampled	03/11/22		<table border="1"> <thead> <tr> <th colspan="3">Landfill Waste Acceptance Criteria Limits</th> </tr> <tr> <th>Inert Waste Landfill</th> <th>Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill</th> <th>Hazardous Waste Landfill</th> </tr> </thead> <tbody> <tr> <td>3%</td> <td>5%</td> <td>6%</td> </tr> <tr> <td>--</td> <td>--</td> <td>10%</td> </tr> <tr> <td>6</td> <td>--</td> <td>--</td> </tr> <tr> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>500</td> <td>--</td> <td>--</td> </tr> <tr> <td>100</td> <td>--</td> <td>--</td> </tr> <tr> <td>--</td> <td>>6</td> <td>--</td> </tr> <tr> <td>--</td> <td>To be evaluated</td> <td>To be evaluated</td> </tr> </tbody> </table>					Landfill Waste Acceptance Criteria Limits			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	3%	5%	6%	--	--	10%	6	--	--	1	--	--	500	--	--	100	--	--	--	>6	--	--	To be evaluated	To be evaluated
Landfill Waste Acceptance Criteria Limits																																							
Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill																																					
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--	--	10%																																					
6	--	--																																					
1	--	--																																					
500	--	--																																					
100	--	--																																					
--	>6	--																																					
--	To be evaluated	To be evaluated																																					
Ridge		Time Sampled	None Supplied																																				
Site Reference: Horton Heath		TP / BH No	SA11																																				
Project / Job Ref: 5019962		Additional Refs	NAT																																				
Order No: 5019962 -619885		Depth (m)	0.90																																				
Reporting Date: 17/11/2022		DETS Sample No	619916																																				
Determinand	Unit	MDL																																					
TOC ^{MU}	%	< 0.1	0.2																																				
Loss on Ignition	%	< 0.01	3.90																																				
BTEX ^{MU}	mg/kg	< 0.05	< 0.05																																				
Sum of PCBs	mg/kg	< 0.1	< 0.1																																				
Mineral Oil ^{MU}	mg/kg	< 10	< 10																																				
Total PAH ^{MU}	mg/kg	< 1.7	< 1.7																																				
pH ^{MU}	pH Units	N/a	6.9																																				
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1																																				
Eluate Analysis			10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)																																
Arsenic ^U		< 0.01			< 0.1	0.5	2	25																															
Barium ^U		< 0.02			< 0.2	20	100	300																															
Cadmium ^U		< 0.0005			< 0.005	0.04	1	5																															
Chromium ^U		< 0.005			< 0.05	0.5	10	70																															
Copper ^U		< 0.01			< 0.1	2	50	100																															
Mercury ^U		< 0.0005			< 0.005	0.01	0.2	2																															
Molybdenum ^U		< 0.001			< 0.01	0.5	10	30																															
Nickel ^U		< 0.007			< 0.07	0.4	10	40																															
Lead ^U		< 0.005			< 0.05	0.5	10	50																															
Antimony ^U		< 0.005			< 0.05	0.06	0.7	5																															
Selenium ^U		< 0.005			< 0.05	0.1	0.5	7																															
Zinc ^U		0.029			0.29	4	50	200																															
Chloride ^U		31			31	800	15000	25000																															
Fluoride ^U		< 0.5			< 5	10	150	500																															
Sulphate ^U		2.7			27	1000	20000	50000																															
TDS		26			260	4000	60000	100000																															
Phenol Index		< 0.01			< 0.1	1	-	-																															
DOC		13.7			137	500	800	1000																															
Leach Test Information																																							
Sample Mass (kg)			0.11																																				
Dry Matter (%)			79.6																																				
Moisture (%)			25.8																																				
Stage 1																																							
Volume Eluate L10 (litres)			0.88																																				

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Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2									
DETS Report No: 22-09433		Date Sampled		03/11/22		Inert Waste Landfill Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill Hazardous Waste Landfill			
Ridge		Time Sampled		None Supplied					
Site Reference: Horton Heath		TP / BH No		TP03					
Project / Job Ref: 5019962		Additional Refs		TS					
Order No: 5019962 -619885		Depth (m)		0.20					
Reporting Date: 17/11/2022		DETS Sample No		619917					
Determinand		Unit		MDL					
TOC ^{MU}		%		< 0.1		1			
Loss on Ignition		%		< 0.01		3.30			
BTEX ^{MU}		mg/kg		< 0.05		< 0.05			
Sum of PCBs		mg/kg		< 0.1		< 0.1			
Mineral Oil ^{MU}		mg/kg		< 10		< 10			
Total PAH ^{MU}		mg/kg		< 1.7		< 1.7			
pH ^{MU}		pH Units		N/a		7.4			
Acid Neutralisation Capacity		mol/kg (+/-)		< 1		< 1			
Eluate Analysis				10:1 mg/l		Cumulative 10:1 mg/kg		Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)	
Arsenic ^U				< 0.01		< 0.1		0.5 2 25	
Barium ^U				< 0.02		< 0.2		20 100 300	
Cadmium ^U				< 0.0005		< 0.005		0.04 1 5	
Chromium ^U				< 0.005		< 0.05		0.5 10 70	
Copper ^U				< 0.01		< 0.1		2 50 100	
Mercury ^U				< 0.0005		< 0.005		0.01 0.2 2	
Molybdenum ^U				< 0.001		< 0.01		0.5 10 30	
Nickel ^U				< 0.007		< 0.07		0.4 10 40	
Lead ^U				< 0.005		< 0.05		0.5 10 50	
Antimony ^U				< 0.005		< 0.05		0.06 0.7 5	
Selenium ^U				< 0.005		< 0.05		0.1 0.5 7	
Zinc ^U				0.027		0.27		4 50 200	
Chloride ^U				2.4		24		800 15000 25000	
Fluoride ^U				< 0.5		< 5		10 150 500	
Sulphate ^U				1.8		18		1000 20000 50000	
TDS				26		260		4000 60000 100000	
Phenol Index				< 0.01		< 0.1		1 - -	
DOC				13		130		500 800 1000	
Leach Test Information									
Sample Mass (kg)				0.11					
Dry Matter (%)				80.9					
Moisture (%)				23.6					
Stage 1									
Volume Eluate L10 (litres)				0.88					
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DETS Report No: 22-09433		Date Sampled	03/11/22		Inert Waste Landfill Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill Hazardous Waste Landfill											
Ridge		Time Sampled	None Supplied													
Site Reference: Horton Heath		TP / BH No	TP13													
Project / Job Ref: 5019962		Additional Refs	NAT													
Order No: 5019962 -619885		Depth (m)	0.80													
Reporting Date: 17/11/2022		DETS Sample No	619918													
Determinand	Unit	MDL														
TOC ^{MU}	%	< 0.1														
Loss on Ignition	%	< 0.01														
BTEX ^{MU}	mg/kg	< 0.05														
Sum of PCBs	mg/kg	< 0.1														
Mineral Oil ^{MU}	mg/kg	< 10														
Total PAH ^{MU}	mg/kg	< 1.7														
pH ^{MU}	pH Units	N/a														
Acid Neutralisation Capacity	mol/kg (+/-)	< 1														
										3%	5%	6%				
										--	--	10%				
			6	--	--											
			1	--	--											
			500	--	--											
			100	--	--											
			--	>6	--											
			--	To be evaluated	To be evaluated											
Eluate Analysis			10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)									
Arsenic ^U			< 0.01			< 0.1	0.5	2	25							
Barium ^U			< 0.02			< 0.2	20	100	300							
Cadmium ^U			< 0.0005			< 0.005	0.04	1	5							
Chromium ^U			< 0.005			< 0.05	0.5	10	70							
Copper ^U			< 0.01			< 0.1	2	50	100							
Mercury ^U			< 0.0005			< 0.005	0.01	0.2	2							
Molybdenum ^U			< 0.001			< 0.01	0.5	10	30							
Nickel ^U			< 0.007			< 0.07	0.4	10	40							
Lead ^U			< 0.005			< 0.05	0.5	10	50							
Antimony ^U			< 0.005			< 0.05	0.06	0.7	5							
Selenium ^U			< 0.005			< 0.05	0.1	0.5	7							
Zinc ^U			0.022			0.22	4	50	200							
Chloride ^U			1.9			19	800	15000	25000							
Fluoride ^U			< 0.5			< 5	10	150	500							
Sulphate ^U			1.6			16	1000	20000	50000							
TDS			44			440	4000	60000	100000							
Phenol Index			0.01			0.1	1	-	-							
DOC			8.3			83.1	500	800	1000							
Leach Test Information																
Sample Mass (kg)			0.11													
Dry Matter (%)			82.3													
Moisture (%)			21.4													
Stage 1																
Volume Eluate L10 (litres)			0.88													

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DETS Report No: 22-09433		Date Sampled	03/11/22		Landfill Waste Acceptance Criteria Limits Inert Waste Landfill Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill Hazardous Waste Landfill				
Ridge		Time Sampled	None Supplied						
Site Reference: Horton Heath		TP / BH No	TP20						
Project / Job Ref: 5019962		Additional Refs	TS						
Order No: 5019962 -619885		Depth (m)	0.20						
Reporting Date: 17/11/2022		DETS Sample No	619919						
Determinand	Unit	MDL							
TOC ^{MU}	%	< 0.1	1.9						
Loss on Ignition	%	< 0.01	5.30						
BTEX ^{MU}	mg/kg	< 0.05	< 0.05						
Sum of PCBs	mg/kg	< 0.1	< 0.1						
Mineral Oil ^{MU}	mg/kg	< 10	< 10						
Total PAH ^{MU}	mg/kg	< 1.7	< 1.7						
pH ^{MU}	pH Units	N/a	7.2						
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1						
Eluate Analysis			10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)		
Arsenic ^U			< 0.01			< 0.1	0.5	2	25
Barium ^U			< 0.02			< 0.2	20	100	300
Cadmium ^U			< 0.0005			< 0.005	0.04	1	5
Chromium ^U			< 0.005			< 0.05	0.5	10	70
Copper ^U			< 0.01			< 0.1	2	50	100
Mercury ^U			< 0.0005			< 0.005	0.01	0.2	2
Molybdenum ^U			< 0.001			< 0.01	0.5	10	30
Nickel ^U			< 0.007			< 0.07	0.4	10	40
Lead ^U			< 0.005			< 0.05	0.5	10	50
Antimony ^U			< 0.005			< 0.05	0.06	0.7	5
Selenium ^U			< 0.005			< 0.05	0.1	0.5	7
Zinc ^U			0.027			0.27	4	50	200
Chloride ^U			2.5			25	800	15000	25000
Fluoride ^U			< 0.5			< 5	10	150	500
Sulphate ^U			2.2			22	1000	20000	50000
TDS			26			260	4000	60000	100000
Phenol Index			< 0.01			< 0.1	1	-	-
DOC			14.1			141	500	800	1000
Leach Test Information									
Sample Mass (kg)			0.11						
Dry Matter (%)			78.5						
Moisture (%)			27.4						
Stage 1									
Volume Eluate L10 (litres)			0.88						

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Landfill Waste Acceptance Criteria Limits																																							
Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill																																					
3%	5%	6%																																					
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1	--	--																																					
500	--	--																																					
100	--	--																																					
--	>6	--																																					
--	To be evaluated	To be evaluated																																					
Ridge		Time Sampled	None Supplied																																				
Site Reference: Horton Heath		TP / BH No	TP24																																				
Project / Job Ref: 5019962		Additional Refs	NAT																																				
Order No: 5019962 -619885		Depth (m)	0.70																																				
Reporting Date: 17/11/2022		DETS Sample No	619920																																				
Determinand	Unit	MDL																																					
TOC ^{MU}	%	< 0.1	0.3																																				
Loss on Ignition	%	< 0.01	4.50																																				
BTEX ^{MU}	mg/kg	< 0.05	< 0.05																																				
Sum of PCBs	mg/kg	< 0.1	< 0.1																																				
Mineral Oil ^{MU}	mg/kg	< 10	< 10																																				
Total PAH ^{MU}	mg/kg	< 1.7	< 1.7																																				
pH ^{MU}	pH Units	N/a	6.7																																				
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1																																				
Eluate Analysis			10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)																																
Arsenic ^U		< 0.01			< 0.1	0.5	2	25																															
Barium ^U		< 0.02			< 0.2	20	100	300																															
Cadmium ^U		< 0.0005			< 0.005	0.04	1	5																															
Chromium ^U		< 0.005			< 0.05	0.5	10	70																															
Copper ^U		< 0.01			< 0.1	2	50	100																															
Mercury ^U		< 0.0005			< 0.005	0.01	0.2	2																															
Molybdenum ^U		< 0.001			< 0.01	0.5	10	30																															
Nickel ^U		< 0.007			< 0.07	0.4	10	40																															
Lead ^U		< 0.005			< 0.05	0.5	10	50																															
Antimony ^U		< 0.005			< 0.05	0.06	0.7	5																															
Selenium ^U		< 0.005			< 0.05	0.1	0.5	7																															
Zinc ^U		0.033			0.33	4	50	200																															
Chloride ^U		2.8			28	800	15000	25000																															
Fluoride ^U		< 0.5			< 5	10	150	500																															
Sulphate ^U		7.6			76	1000	20000	50000																															
TDS		30			300	4000	60000	100000																															
Phenol Index		0.01			0.1	1	-	-																															
DOC		11.9			119	500	800	1000																															
Leach Test Information																																							
Sample Mass (kg)			0.13																																				
Dry Matter (%)			70.9																																				
Moisture (%)			41																																				
Stage 1																																							
Volume Eluate L10 (litres)			0.86																																				

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Ridge		Time Sampled	None Supplied						
Site Reference: Horton Heath		TP / BH No	TP28						
Project / Job Ref: 5019962		Additional Refs	TS						
Order No: 5019962 -619885		Depth (m)	0.40						
Reporting Date: 17/11/2022		DETS Sample No	619921						
Determinand	Unit	MDL							
TOC ^{MU}	%	< 0.1	0.7						
Loss on Ignition	%	< 0.01	2.90						
BTEX ^{MU}	mg/kg	< 0.05	< 0.05						
Sum of PCBs	mg/kg	< 0.1	< 0.1						
Mineral Oil ^{MU}	mg/kg	< 10	< 10						
Total PAH ^{MU}	mg/kg	< 1.7	< 1.7						
pH ^{MU}	pH Units	N/a	7.2						
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1						
Eluate Analysis			10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)		
Arsenic ^U			< 0.01			< 0.1	0.5	2	25
Barium ^U			< 0.02			< 0.2	20	100	300
Cadmium ^U			< 0.0005			< 0.005	0.04	1	5
Chromium ^U			< 0.005			< 0.05	0.5	10	70
Copper ^U			< 0.01			< 0.1	2	50	100
Mercury ^U			< 0.0005			< 0.005	0.01	0.2	2
Molybdenum ^U			< 0.001			< 0.01	0.5	10	30
Nickel ^U			< 0.007			< 0.07	0.4	10	40
Lead ^U			< 0.005			< 0.05	0.5	10	50
Antimony ^U			< 0.005			< 0.05	0.06	0.7	5
Selenium ^U			< 0.005			< 0.05	0.1	0.5	7
Zinc ^U			0.030			0.30	4	50	200
Chloride ^U			2.4			24	800	15000	25000
Fluoride ^U			< 0.5			< 5	10	150	500
Sulphate ^U			2.5			25	1000	20000	50000
TDS			18			180	4000	60000	100000
Phenol Index			0.01			0.1	1	-	-
DOC			10.8			108	500	800	1000
Leach Test Information									
Sample Mass (kg)			0.11						
Dry Matter (%)			78.7						
Moisture (%)			27.2						
Stage 1									
Volume Eluate L10 (litres)			0.88						

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion

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M Denotes MCERTS accredited test

U Denotes ISO17025 accredited test



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Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2									
DETS Report No: 22-09433		Date Sampled	03/11/22		Inert Waste Landfill Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill Hazardous Waste Landfill				
Ridge		Time Sampled	None Supplied						
Site Reference: Horton Heath		TP / BH No	TP40						
Project / Job Ref: 5019962		Additional Refs	NAT						
Order No: 5019962 -619885		Depth (m)	0.80						
Reporting Date: 17/11/2022		DETS Sample No	619922						
Determinand	Unit	MDL							
TOC ^{MU}	%	< 0.1	0.6						
Loss on Ignition	%	< 0.01	3						
BTEX ^{MU}	mg/kg	< 0.05	< 0.05						
Sum of PCBs	mg/kg	< 0.1	< 0.1						
Mineral Oil ^{MU}	mg/kg	< 10	< 10						
Total PAH ^{MU}	mg/kg	< 1.7	< 1.7						
pH ^{MU}	pH Units	N/a	7.2						
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1						
Eluate Analysis			10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)		
Arsenic ^U			< 0.01			< 0.1	0.5	2	25
Barium ^U			< 0.02			< 0.2	20	100	300
Cadmium ^U			< 0.0005			< 0.005	0.04	1	5
Chromium ^U			< 0.005			< 0.05	0.5	10	70
Copper ^U			< 0.01			< 0.1	2	50	100
Mercury ^U			< 0.0005			< 0.005	0.01	0.2	2
Molybdenum ^U			< 0.001			< 0.01	0.5	10	30
Nickel ^U			< 0.007			< 0.07	0.4	10	40
Lead ^U			< 0.005			< 0.05	0.5	10	50
Antimony ^U			< 0.005			< 0.05	0.06	0.7	5
Selenium ^U			< 0.005			< 0.05	0.1	0.5	7
Zinc ^U			0.024			0.24	4	50	200
Chloride ^U			26			26	800	15000	25000
Fluoride ^U			< 0.5			< 5	10	150	500
Sulphate ^U			4.1			41	1000	20000	50000
TDS			26			260	4000	60000	100000
Phenol Index			0.02			0.2	1	-	-
DOC			10			99.6	500	800	1000
Leach Test Information									
Sample Mass (kg)			0.11						
Dry Matter (%)			79.9						
Moisture (%)			25.2						
Stage 1									
Volume Eluate L10 (litres)			0.88						

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion

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Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2																																							
DETS Report No: 22-09433		Date Sampled	03/11/22		<table border="1"> <thead> <tr> <th colspan="3">Landfill Waste Acceptance Criteria Limits</th> </tr> <tr> <th>Inert Waste Landfill</th> <th>Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill</th> <th>Hazardous Waste Landfill</th> </tr> </thead> <tbody> <tr> <td>3%</td> <td>5%</td> <td>6%</td> </tr> <tr> <td>--</td> <td>--</td> <td>10%</td> </tr> <tr> <td>6</td> <td>--</td> <td>--</td> </tr> <tr> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>500</td> <td>--</td> <td>--</td> </tr> <tr> <td>100</td> <td>--</td> <td>--</td> </tr> <tr> <td>--</td> <td>>6</td> <td>--</td> </tr> <tr> <td>--</td> <td>To be evaluated</td> <td>To be evaluated</td> </tr> </tbody> </table>					Landfill Waste Acceptance Criteria Limits			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	3%	5%	6%	--	--	10%	6	--	--	1	--	--	500	--	--	100	--	--	--	>6	--	--	To be evaluated	To be evaluated
Landfill Waste Acceptance Criteria Limits																																							
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3%	5%	6%																																					
--	--	10%																																					
6	--	--																																					
1	--	--																																					
500	--	--																																					
100	--	--																																					
--	>6	--																																					
--	To be evaluated	To be evaluated																																					
Ridge		Time Sampled	None Supplied																																				
Site Reference: Horton Heath		TP / BH No	TP43																																				
Project / Job Ref: 5019962		Additional Refs	TS																																				
Order No: 5019962 -619885		Depth (m)	0.30																																				
Reporting Date: 17/11/2022		DETS Sample No	619923																																				
Determinand	Unit	MDL																																					
TOC ^{MU}	%	< 0.1	1																																				
Loss on Ignition	%	< 0.01	4.30																																				
BTEX ^{MU}	mg/kg	< 0.05	< 0.05																																				
Sum of PCBs	mg/kg	< 0.1	< 0.1																																				
Mineral Oil ^{MU}	mg/kg	< 10	< 10																																				
Total PAH ^{MU}	mg/kg	< 1.7	< 1.7																																				
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Selenium ^U		< 0.005			< 0.05	0.1	0.5	7																															
Zinc ^U		0.029			0.29	4	50	200																															
Chloride ^U		3.1			31	800	15000	25000																															
Fluoride ^U		< 0.5			< 5	10	150	500																															
Sulphate ^U		3.8			38	1000	20000	50000																															
TDS		38			380	4000	60000	100000																															
Phenol Index		0.02			0.2	1	-	-																															
DOC		20.2			202	500	800	1000																															
Leach Test Information																																							
Sample Mass (kg)			0.11																																				
Dry Matter (%)			78.9																																				
Moisture (%)			26.8																																				
Stage 1																																							
Volume Eluate L10 (litres)			0.88																																				

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Soil Analysis Certificate - Sample Descriptions

DETS Report No: 22-09433	
Ridge	
Site Reference: Horton Heath	
Project / Job Ref: 5019962	
Order No: 5019962 -619885	
Reporting Date: 17/11/2022	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
619910	SA01	NAT	0.70	25.9	Light brown clay
619911	SA03	TS	0.10	18.3	Brown sandy clay with stones
619912	SA04	NAT	0.60	20	Light brown clay
619913	SA06	TS	0.20	26.2	Light brown sandy clay
619914	SA07	NAT	0.80	17.8	Brown sandy clay with stones
619915	SA09	TS	0.30	19.7	Light brown sandy clay
619916	SA11	NAT	0.90	20.4	Light brown clay
619917	TP03	TS	0.20	19.1	Brown sandy clay with stones
619918	TP13	NAT	0.80	17.6	Light brown sandy clay
619919	TP20	TS	0.20	21.4	Light brown sandy clay
619920	TP24	NAT	0.70	29.1	Brown clay
619921	TP28	TS	0.40	21.3	Light brown clay
619922	TP40	NAT	0.80	20.1	Light brown clay
619923	TP43	TS	0.30	21.1	Brown sandy clay

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

Insufficient Sample ^{1/S}

Unsuitable Sample ^{U/S}



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Soil Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 22-09433

Ridge

Site Reference: Horton Heath

Project / Job Ref: 5019962

Order No: 5019962 -619885

Reporting Date: 17/11/2022

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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Water Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 22-09433

Ridge

Site Reference: Horton Heath

Project / Job Ref: 5019962

Order No: 5019962 -619885

Reporting Date: 17/11/2022

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Water	UF	Alkalinity	Determination of alkalinity by titration against hydrochloric acid using bromocresol green as the end point	E103
Water	F	Ammoniacal Nitrogen	Determination of ammoniacal nitrogen by discrete analyser.	E126
Water	UF	BTEX	Determination of BTEX by headspace GC-MS	E101
Water	F	Cations	Determination of cations by filtration followed by ICP-MS	E102
Water	UF	Chemical Oxygen Demand (COD)	Determination using a COD reactor followed by colorimetry	E112
Water	F	Chloride	Determination of chloride by filtration & analysed by ion chromatography	E109
Water	F	Chromium - Hexavalent	Determination of hexavalent chromium by acidification, addition of 1,5 diphenylcarbazine followed by	E116
Water	UF	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E115
Water	UF	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E115
Water	UF	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E115
Water	UF	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through liquid:liquid extraction with cyclohexane	E111
Water	F	Diesel Range Organics (C10 - C24)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	Dissolved Organic Content (DOC)	Determination of DOC by filtration followed by low heat with persulphate addition followed by IR detection	E110
Water	UF	Electrical Conductivity	Determination of electrical conductivity by electrometric measurement	E123
Water	F	EPH (C10 - C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E104
Water	F	Fluoride	Determination of Fluoride by filtration & analysed by ion chromatography	E109
Water	F	Hardness	Determination of Ca and Mg by ICP-MS followed by calculation	E102
Leachate	F	Leachate Preparation - NRA	Based on National Rivers Authority leaching test 1994	E301
Leachate	F	Leachate Preparation - WAC	Based on BS EN 12457 Pt1, 2, 3	E302
Water	F	Metals	Determination of metals by filtration followed by ICP-MS	E102
Water	F	Mineral Oil (C10 - C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	Nitrate	Determination of nitrate by filtration & analysed by ion chromatography	E109
Water	UF	Monohydric Phenol	Determination of phenols by distillation followed by colorimetry	E121
Water	F	PAH - Speciated (EPA 16)	Determination of PAH compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E105
Water	F	PCB - 7 Congeners	Determination of PCB compounds by concentration through SPE cartridge, collection in dichloromethane	E108
Water	UF	Petroleum Ether Extract (PEE)	Gravimetrically determined through liquid:liquid extraction with petroleum ether	E111
Water	UF	pH	Determination of pH by electrometric measurement	E107
Water	F	Phosphate	Determination of phosphate by filtration & analysed by ion chromatography	E109
Water	UF	Redox Potential	Determination of redox potential by electrometric measurement	E113
Water	F	Sulphate (as SO4)	Determination of sulphate by filtration & analysed by ion chromatography	E109
Water	UF	Sulphide	Determination of sulphide by distillation followed by colorimetry	E118
Water	F	SVOC	Determination of semi-volatile organic compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E106
Water	UF	Toluene Extractable Matter (TEM)	Gravimetrically determined through liquid:liquid extraction with toluene	E111
Water	UF	Total Organic Carbon (TOC)	Low heat with persulphate addition followed by IR detection	E110
Water	F	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 liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C35. C5 to C8 by headspace GC-MS	E104
Water	F	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 liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C44. C5 to C8 by headspace GC-MS	E104
Water	UF	VOCs	Determination of volatile organic compounds by headspace GC-MS	E101
Water	UF	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E101

Key

F Filtered
UF Unfiltered



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List of HWOL Acronyms and Operators
DETS Report No: 22-09433
Ridge
Site Reference: Horton Heath
Project / Job Ref: 5019962
Order No: 5019962 -619885
Reporting Date: 17/11/2022

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total

Det - Acronym
Benzene - HS_1D_MS
Ethylbenzene - HS_1D_MS
MTBE - HS_1D_MS
Mineral Oil (C10 - C40) (BS EN 12457-2) - EH_CU_1D_AL
TPH CWG - Aliphatic >C10 - C12 - EH_CU_1D_AL
TPH CWG - Aliphatic >C12 - C16 - EH_CU_1D_AL
TPH CWG - Aliphatic >C16 - C21 - EH_CU_1D_AL
TPH CWG - Aliphatic >C21 - C34 - EH_CU_1D_AL
TPH CWG - Aliphatic >C5 - C6 - HS_1D_MS_AL
TPH CWG - Aliphatic >C6 - C8 - HS_1D_MS_AL
TPH CWG - Aliphatic >C8 - C10 - EH_CU_1D_AL
TPH CWG - Aliphatic C5 - C34 - HS_1D_MS+EH_CU_1D_AL
TPH CWG - Aromatic >C10 - C12 - EH_CU_1D_AR
TPH CWG - Aromatic >C12 - C16 - EH_CU_1D_AR
TPH CWG - Aromatic >C16 - C21 - EH_CU_1D_AR
TPH CWG - Aromatic >C21 - C35 - EH_CU_1D_AR
TPH CWG - Aromatic >C5 - C35 - HS_1D_MS+EH_CU_1D_AR
TPH CWG - Aromatic >C5 - C7 - HS_1D_MS_AR
TPH CWG - Aromatic >C7 - C8 - HS_1D_MS_AR
TPH CWG - Aromatic >C8 - C10 - EH_CU_1D_AR
TPH CWG - Total >C5 - C35 - HS_1D_MS+EH_CU_1D_Total
Toluene - HS_1D_MS
Total BTEX (BS EN 12457-2) - HS_1D_MS_Total
m & p-xylene - HS_1D_MS
o-Xylene - HS_1D_MS

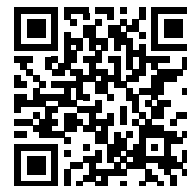
Parameter	Matrix Type	Suite Reference	Expanded Uncertainty Measurement	Unit
TOC	Soil	BS EN 12457	12.1	%
Loss on Ignition	Soil	BS EN 12457	20.4	%
BTEX	Soil	BS EN 12457	14.0	%
Sum of PCBs	Soil	BS EN 12457	21.1	%
Mineral Oil	Soil	BS EN 12457	9.0	%
Total PAH	Soil	BS EN 12457	13.9	%
pH	Soil	BS EN 12457	0.248	Units
Acid Neutralisation Capacity	Soil	BS EN 12457	18.0	%
Arsenic	Leachate	BS EN 12457	15.9	%
Barium	Leachate	BS EN 12457	14.4	%
Cadmium	Leachate	BS EN 12457	12.6	%
Chromium	Leachate	BS EN 12457	13.4	%
Copper	Leachate	BS EN 12457	13.1	%
Mercury	Leachate	BS EN 12457	16.2	%
Molybdenum	Leachate	BS EN 12457	13.6	%
Nickel	Leachate	BS EN 12457	16.0	%
Lead	Leachate	BS EN 12457	12.4	%
Antimony	Leachate	BS EN 12457	14.6	%
Selenium	Leachate	BS EN 12457	16.5	%
Zinc	Leachate	BS EN 12457	14.5	%
Chloride	Leachate	BS EN 12457	17.0	%
Fluoride	Leachate	BS EN 12457	12.0	%
Sulphate	Leachate	BS EN 12457	25.1	%
TDS	Leachate	BS EN 12457	10.0	%
Phenol Index	Leachate	BS EN 12457	12.9	%
DOC	Leachate	BS EN 12457	10.0	%
Clay Content	Soil	BS 3882: 2015	15.0	%
Silt Content	Soil	BS 3882: 2015	14.0	%
Sand Content	Soil	BS 3882: 2015	13.0	%
Loss on Ignition	Soil	BS 3882: 2015	12.4	%
pH	Soil	BS 3882: 2015	0.248	Units
Carbonate	Soil	BS 3882: 2015	12.0	%
Total Nitrogen	Soil	BS 3882: 2015	12.0	%
Phosphorus (Extractable)	Soil	BS 3882: 2015	24.0	%
Potassium (Extractable)	Soil	BS 3882: 2015	20.0	%
Magnesium (Extractable)	Soil	BS 3882: 2015	26.0	%
Zinc	Soil	BS 3882: 2015	14.9	%
Copper	Soil	BS 3882: 2015	16.0	%
Nickel	Soil	BS 3882: 2015	17.7	%
Available Sodium	Soil	BS 3882: 2015	23.0	%
Available Calcium	Soil	BS 3882: 2015	23.0	%
Electrical Conductivity	Soil	BS 3882: 2015	10.0	%

APPENDIX 7 – WASTE CLASSIFICATION REPORT

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

- understand the origin of the waste
- select the correct List of Waste code(s)
- confirm that the list of determinands, results and sampling plan are fit for purpose
- select and justify the chosen metal species (Appendix B)
- correctly apply moisture correction and other available corrections
- add the meta data for their user-defined substances (Appendix A)
- check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)



OMSZN-1W7RL-TXVI9

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

5019962 - One Horton Heath[2]

Description/Comments

Project

5019962 - One Horton Heath

Site

One Horton Heath

Classified by

Name: **Richard Holloway**
Date: **16 Jan 2023 09:01 GMT**
Telephone: **07748 790224**

Company: **Ridge & Partners LLP**
Tower Wharf, Cheese Ln
Bristol
BS2 0JJ

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification:

-

Course

Hazardous Waste Classification

Date

-

Purpose of classification

2 - Material Characterisation

Address of the waste

SO30 2HU

Post Code SO30 2HU

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Redevelopment of green field land

Description of the specific process, sub-process and/or activity that created the waste

Foundation excavation and sitewide earthworks

Description of the waste

Sandy silty Clay

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	WAC Results			Page
					Inert	SNRHW	Hazardous	
1	SA01-0.70-03/11/2022	0.70	Non Hazardous		Pass	Pass	N/A	3
2	SA03-0.10-03/11/2022	0.10	Non Hazardous		Pass	Pass	N/A	6
3	SA04-0.60-03/11/2022	0.60	Non Hazardous		Pass	Pass	N/A	9
4	SA06-0.20-03/11/2022	0.20	Non Hazardous		Pass	Fail	N/A	12
5	SA07-0.80-03/11/2022	0.80	Non Hazardous		Pass	Pass	N/A	15
6	SA09-0.30-03/11/2022	0.30	Non Hazardous		Pass	Pass	N/A	18
7	SA11-0.90-03/11/2022	0.90	Non Hazardous		Pass	Pass	N/A	21
8	TP03-0.20-03/11/2022	0.20	Non Hazardous		Pass	Pass	N/A	24
9	TP13-0.80-03/11/2022	0.80	Non Hazardous		Pass	Pass	N/A	27
10	TP20-0.20-03/11/2022	0.20	Non Hazardous		Pass	Pass	N/A	30
11	TP24-0.70-03/11/2022	0.70	Non Hazardous		Pass	Pass	N/A	33
12	TP28-0.40-03/11/2022	0.40	Non Hazardous		Pass	Pass	N/A	36
13	TP40-0.80-03/11/2022	0.80	Non Hazardous		Pass	Pass	N/A	39
14	TP43-0.30-03/11/2022	0.30	Non Hazardous		Pass	Pass	N/A	42

Related documents

#	Name	Description
1	22-09433.1.hwol	DETS South .hwol file used to populate the Job
2	Example waste stream template for contaminated soils	waste stream template used to create this Job

WAC results

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate the samples in this Job: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

Report

Created by: Richard Holloway

Created date: 16 Jan 2023 09:01 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	45
Appendix B: Rationale for selection of metal species	46
Appendix C: Version	47

Classification of sample: SA01-0.70-03/11/2022

**Non Hazardous Waste**Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
SA01-0.70-03/11/2022	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.70 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
25.9%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 25.9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }				9 mg/kg	1.32	8.805 mg/kg	0.000881 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				19 mg/kg	1.462	20.577 mg/kg	0.00206 %	✓	
		215-160-9	1308-38-9							
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<2 mg/kg	2.27	<4.54 mg/kg	<0.000454 %		<LOD
	024-017-00-8									
5	copper { dicopper oxide; copper (I) oxide }				13 mg/kg	1.126	10.846 mg/kg	0.00108 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
6	lead { lead chromate }			1	12 mg/kg	1.56	13.87 mg/kg	0.000889 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
7	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
8	nickel { nickel chromate }				<3 mg/kg	2.976	<8.929 mg/kg	<0.000893 %		<LOD
	028-035-00-7	238-766-5	14721-18-7							
9	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
10	zinc { zinc chromate }				30 mg/kg	2.774	61.669 mg/kg	0.00617 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
11	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
			TPH							
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							
13	benzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
14	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
15	ethylbenzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-023-00-4	202-849-4	100-41-4							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
17	 cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<2 mg/kg	1.884	<3.768 mg/kg	<0.000377 %		<LOD
18	 pH		PH		6.9 pH		6.9 pH	6.9 pH		
19	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
20	 acenaphthylene	205-917-1	208-96-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
21	 acenaphthene	201-469-6	83-32-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
22	 fluorene	201-695-5	86-73-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	 phenanthrene	201-581-5	85-01-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	 anthracene	204-371-1	120-12-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	 fluoranthene	205-912-4	206-44-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
26	 pyrene	204-927-3	129-00-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
27	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
28	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
29	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
30	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
31	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
32	 indeno[123-cd]pyrene	205-893-2	193-39-5		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
33	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
34	 benzo[ghi]perylene	205-883-8	191-24-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
35	 monohydric phenols		P1186		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
Total:								0.018 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: SA01-0.70-03/11/2022

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample **PASSES** the Inert (Inert waste landfill) criteria.

The sample **PASSES** the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	0.4	3	5	6
2	LOI (loss on ignition)	%	4.3	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	6.9	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.1	0.5	2	25
10	barium	mg/kg	<0.2	20	100	300
11	cadmium	mg/kg	<0.005	0.04	1	5
12	chromium	mg/kg	<0.05	0.5	10	70
13	copper	mg/kg	<0.1	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	<0.01	0.5	10	30
16	nickel	mg/kg	<0.07	0.4	10	40
17	lead	mg/kg	<0.05	0.5	10	50
18	antimony	mg/kg	<0.05	0.06	0.7	5
19	selenium	mg/kg	<0.05	0.1	0.5	7
20	zinc	mg/kg	0.22	4	50	200
21	chloride	mg/kg	24	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	26	1,000	20,000	50,000
24	phenol index	mg/kg	0.2	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	118	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	120	4,000	60,000	100,000

Key

	User supplied data
	Not applicable

Classification of sample: SA03-0.10-03/11/2022

✓ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
SA03-0.10-03/11/2022	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.10 m	
Moisture content:	
18.3%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 18.3% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	11 mg/kg	1.32	11.866 mg/kg	0.00119 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }	215-160-9	1308-38-9		12 mg/kg	1.462	14.329 mg/kg	0.00143 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8			<2 mg/kg	2.27	<4.54 mg/kg	<0.000454 %		<LOD
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	13 mg/kg	1.126	11.958 mg/kg	0.0012 %	✓	
6	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	34 mg/kg	1.56	43.329 mg/kg	0.00278 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
8	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	5 mg/kg	2.976	12.158 mg/kg	0.00122 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5	<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
10	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	33 mg/kg	2.774	74.794 mg/kg	0.00748 %	✓	
11	TPH (C6 to C40) petroleum group			TPH	<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
13	benzene	601-020-00-8	200-753-7	71-43-2	<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
15	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
17	 cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<2 mg/kg	1.884	<3.768 mg/kg	<0.000377 %		<LOD
18	 pH		PH		7.3 pH		7.3 pH	7.3 pH		
19	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
20	 acenaphthylene	205-917-1	208-96-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
21	 acenaphthene	201-469-6	83-32-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
22	 fluorene	201-695-5	86-73-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	 phenanthrene	201-581-5	85-01-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	 anthracene	204-371-1	120-12-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	 fluoranthene	205-912-4	206-44-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
26	 pyrene	204-927-3	129-00-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
27	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
28	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
29	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
30	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
31	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
32	 indeno[123-cd]pyrene	205-893-2	193-39-5		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
33	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
34	 benzo[ghi]perylene	205-883-8	191-24-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
35	 monohydric phenols		P1186		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
Total:								0.0213 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: SA03-0.10-03/11/2022

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample **PASSES** the Inert (Inert waste landfill) criteria.

The sample **PASSES** the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	1.1	3	5	6
2	LOI (loss on ignition)	%	4.1	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	7.3	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.1	0.5	2	25
10	barium	mg/kg	<0.2	20	100	300
11	cadmium	mg/kg	<0.005	0.04	1	5
12	chromium	mg/kg	<0.05	0.5	10	70
13	copper	mg/kg	<0.1	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	<0.01	0.5	10	30
16	nickel	mg/kg	<0.07	0.4	10	40
17	lead	mg/kg	<0.05	0.5	10	50
18	antimony	mg/kg	<0.05	0.06	0.7	5
19	selenium	mg/kg	<0.05	0.1	0.5	7
20	zinc	mg/kg	0.23	4	50	200
21	chloride	mg/kg	43	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	60	1,000	20,000	50,000
24	phenol index	mg/kg	0.3	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	177	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	310	4,000	60,000	100,000

Key

	User supplied data
	Not applicable

Classification of sample: SA04-0.60-03/11/2022

**Non Hazardous Waste**Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
SA04-0.60-03/11/2022	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.60 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
20%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 20% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }				9 mg/kg	1.32	9.506 mg/kg	0.000951 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				20 mg/kg	1.462	23.385 mg/kg	0.00234 %	✓	
		215-160-9	1308-38-9							
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<2 mg/kg	2.27	<4.54 mg/kg	<0.000454 %		<LOD
	024-017-00-8									
5	copper { dicopper oxide; copper (I) oxide }				6 mg/kg	1.126	5.404 mg/kg	0.00054 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
6	lead { lead chromate }			1	9 mg/kg	1.56	11.231 mg/kg	0.00072 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
7	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
8	nickel { nickel chromate }				7 mg/kg	2.976	16.667 mg/kg	0.00167 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
9	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
10	zinc { zinc chromate }				35 mg/kg	2.774	77.676 mg/kg	0.00777 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
11	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
			TPH							
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							
13	benzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
14	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
15	ethylbenzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-023-00-4	202-849-4	100-41-4							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
17	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<2 mg/kg	1.884	<3.768 mg/kg	<0.000377 %		<LOD
18	pH		PH		6.3 pH		6.3 pH	6.3 pH		
19	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
20	acenaphthylene 205-917-1	208-96-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
21	acenaphthene 201-469-6	83-32-9			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
22	fluorene 201-695-5	86-73-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	phenanthrene 201-581-5	85-01-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	anthracene 204-371-1	120-12-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	fluoranthene 205-912-4	206-44-0			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
26	pyrene 204-927-3	129-00-0			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
27	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
28	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
29	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
30	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
31	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
32	indeno[123-cd]pyrene 205-893-2	193-39-5			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
33	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
34	benzo[ghi]perylene 205-883-8	191-24-2			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
35	monohydric phenols P1186				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
Total:								0.02 %		

Key

- User supplied data
- Determinand values ignored for classification, see column 'Conc. Not Used' for reason
- Determinand defined or amended by HazWasteOnline (see Appendix A)
- Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
- <LOD Below limit of detection
- ND Not detected
- CLP: Note 1 Only the metal concentration has been used for classification

WAC results for sample: SA04-0.60-03/11/2022

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample **PASSES** the Inert (Inert waste landfill) criteria.

The sample **PASSES** the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	0.5	3	5	6
2	LOI (loss on ignition)	%	7.3	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	6.3	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.1	0.5	2	25
10	barium	mg/kg	<0.2	20	100	300
11	cadmium	mg/kg	<0.005	0.04	1	5
12	chromium	mg/kg	<0.05	0.5	10	70
13	copper	mg/kg	<0.1	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	<0.01	0.5	10	30
16	nickel	mg/kg	<0.07	0.4	10	40
17	lead	mg/kg	<0.05	0.5	10	50
18	antimony	mg/kg	<0.05	0.06	0.7	5
19	selenium	mg/kg	<0.05	0.1	0.5	7
20	zinc	mg/kg	0.27	4	50	200
21	chloride	mg/kg	22	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	29	1,000	20,000	50,000
24	phenol index	mg/kg	0.2	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	125	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	300	4,000	60,000	100,000

Key

	User supplied data
	Not applicable

Classification of sample: SA06-0.20-03/11/2022

Non Hazardous Waste
Classified as 17 05 04
in the List of Waste

Sample details

Sample name:	LoW Code:
SA06-0.20-03/11/2022	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.20 m	
Moisture content:	
26.2%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 26.2% Wet Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used		
		EU CLP index number	EC Number	CAS Number									
1		arsenic { arsenic trioxide }				4	mg/kg	1.32	3.898	mg/kg	0.00039 %	✓	
		033-003-00-0	215-481-4	1327-53-3									
2		cadmium { cadmium oxide }				<0.2	mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<LOD
		048-002-00-0	215-146-2	1306-19-0									
3		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				10	mg/kg	1.462	10.786	mg/kg	0.00108 %	✓	
			215-160-9	1308-38-9									
4		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<2	mg/kg	2.27	<4.54	mg/kg	<0.000454 %		<LOD
		024-017-00-8											
5		copper { dicopper oxide; copper (I) oxide }				6	mg/kg	1.126	4.985	mg/kg	0.000499 %	✓	
		029-002-00-X	215-270-7	1317-39-1									
6		lead { lead chromate }			1	12	mg/kg	1.56	13.814	mg/kg	0.000886 %	✓	
		082-004-00-2	231-846-0	7758-97-6									
7		mercury { mercury dichloride }				<1	mg/kg	1.353	<1.353	mg/kg	<0.000135 %		<LOD
		080-010-00-X	231-299-8	7487-94-7									
8		nickel { nickel chromate }				5	mg/kg	2.976	10.982	mg/kg	0.0011 %	✓	
		028-035-00-7	238-766-5	14721-18-7									
9		selenium { nickel selenate }				<2	mg/kg	2.554	<5.108	mg/kg	<0.000511 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
10		zinc { zinc chromate }				31	mg/kg	2.774	63.467	mg/kg	0.00635 %	✓	
		024-007-00-3	236-878-9	13530-65-9									
11		TPH (C6 to C40) petroleum group				<42	mg/kg		<42	mg/kg	<0.0042 %		<LOD
				TPH									
12		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
13		benzene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
14		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
15		ethylbenzene				<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
		601-023-00-4	202-849-4	100-41-4									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
17	 cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<2 mg/kg	1.884	<3.768 mg/kg	<0.000377 %		<LOD
18	 pH		PH		5 pH		5 pH	5pH		
19	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
20	 acenaphthylene	205-917-1	208-96-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
21	 acenaphthene	201-469-6	83-32-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
22	 fluorene	201-695-5	86-73-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	 phenanthrene	201-581-5	85-01-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	 anthracene	204-371-1	120-12-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	 fluoranthene	205-912-4	206-44-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
26	 pyrene	204-927-3	129-00-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
27	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
28	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
29	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
30	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
31	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
32	 indeno[123-cd]pyrene	205-893-2	193-39-5		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
33	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
34	 benzo[ghi]perylene	205-883-8	191-24-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
35	 monohydric phenols		P1186		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
Total:								0.0164 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: SA06-0.20-03/11/2022

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample PASSES the Inert (Inert waste landfill) criteria.

The sample FAILS the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	<0.1	3	5	6
2	LOI (loss on ignition)	%	3.9	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	5	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.1	0.5	2	25
10	barium	mg/kg	<0.2	20	100	300
11	cadmium	mg/kg	<0.005	0.04	1	5
12	chromium	mg/kg	<0.05	0.5	10	70
13	copper	mg/kg	<0.1	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	<0.01	0.5	10	30
16	nickel	mg/kg	<0.07	0.4	10	40
17	lead	mg/kg	<0.05	0.5	10	50
18	antimony	mg/kg	<0.05	0.06	0.7	5
19	selenium	mg/kg	<0.05	0.1	0.5	7
20	zinc	mg/kg	0.23	4	50	200
21	chloride	mg/kg	53	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	36	1,000	20,000	50,000
24	phenol index	mg/kg	0.1	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	74.2	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	100	4,000	60,000	100,000

Key

	User supplied data
	Not applicable
	SNRHW WAC criteria fail

Classification of sample: SA07-0.80-03/11/2022

**Non Hazardous Waste**Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
SA07-0.80-03/11/2022	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.80 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
17.8%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 17.8% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }				4 mg/kg	1.32	4.341 mg/kg	0.000434 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				9 mg/kg	1.462	10.813 mg/kg	0.00108 %	✓	
		215-160-9	1308-38-9							
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<2 mg/kg	2.27	<4.54 mg/kg	<0.000454 %		<LOD
	024-017-00-8									
5	copper { dicopper oxide; copper (I) oxide }				14 mg/kg	1.126	12.957 mg/kg	0.0013 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
6	lead { lead chromate }			1	22 mg/kg	1.56	28.208 mg/kg	0.00181 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
7	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
8	nickel { nickel chromate }				4 mg/kg	2.976	9.786 mg/kg	0.000979 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
9	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
10	zinc { zinc chromate }				45 mg/kg	2.774	102.616 mg/kg	0.0103 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
11	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
			TPH							
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							
13	benzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
14	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
15	ethylbenzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-023-00-4	202-849-4	100-41-4							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
17	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<2 mg/kg	1.884	<3.768 mg/kg	<0.000377 %		<LOD
18	pH		PH		7.2 pH		7.2 pH	7.2 pH		
19	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
20	acenaphthylene 205-917-1	208-96-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
21	acenaphthene 201-469-6	83-32-9			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
22	fluorene 201-695-5	86-73-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	phenanthrene 201-581-5	85-01-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	anthracene 204-371-1	120-12-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	fluoranthene 205-912-4	206-44-0			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
26	pyrene 204-927-3	129-00-0			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
27	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
28	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
29	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
30	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
31	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
32	indeno[123-cd]pyrene 205-893-2	193-39-5			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
33	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
34	benzo[ghi]perylene 205-883-8	191-24-2			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
35	monohydric phenols P1186				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
Total:								0.0219 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: SA07-0.80-03/11/2022

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample PASSES the Inert (Inert waste landfill) criteria.

The sample PASSES the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	1.1	3	5	6
2	LOI (loss on ignition)	%	3.9	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	7.2	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.1	0.5	2	25
10	barium	mg/kg	<0.2	20	100	300
11	cadmium	mg/kg	<0.005	0.04	1	5
12	chromium	mg/kg	<0.05	0.5	10	70
13	copper	mg/kg	<0.1	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	<0.01	0.5	10	30
16	nickel	mg/kg	<0.07	0.4	10	40
17	lead	mg/kg	<0.05	0.5	10	50
18	antimony	mg/kg	<0.05	0.06	0.7	5
19	selenium	mg/kg	<0.05	0.1	0.5	7
20	zinc	mg/kg	0.26	4	50	200
21	chloride	mg/kg	27	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	49	1,000	20,000	50,000
24	phenol index	mg/kg	0.2	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	166	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	250	4,000	60,000	100,000

Key

	User supplied data
	Not applicable

Classification of sample: SA09-0.30-03/11/2022

 **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample name:	LoW Code:
SA09-0.30-03/11/2022	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.30 m	
Moisture content:	
19.7%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 19.7% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	6 mg/kg	1.32	6.361 mg/kg	0.000636 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	17 mg/kg	1.462	19.952 mg/kg	0.002 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8			<2 mg/kg	2.27	<4.54 mg/kg	<0.000454 %		<LOD
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	7 mg/kg	1.126	6.329 mg/kg	0.000633 %	✓	
6	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	12 mg/kg	1.56	15.03 mg/kg	0.000964 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
8	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	7 mg/kg	2.976	16.73 mg/kg	0.00167 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5	<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
10	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	37 mg/kg	2.774	82.423 mg/kg	0.00824 %	✓	
11	TPH (C6 to C40) petroleum group			TPH	<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
13	benzene	601-020-00-8	200-753-7	71-43-2	<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
15	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
16		xylene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	601-022-00-9	202-422-2 [1]	95-47-6 [1]								
		203-396-5 [2]	106-42-3 [2]								
		203-576-3 [3]	108-38-3 [3]								
		215-535-7 [4]	1330-20-7 [4]								
17		cyanides {  salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<2 mg/kg	1.884	<3.768 mg/kg	<0.000377 %		<LOD
		006-007-00-5									
18		pH				6.6 pH		6.6 pH	6.6 pH		
				PH							
19		naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3							
20		acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8							
21		acenaphthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9							
22		fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7							
23		phenanthrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8							
24		anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7							
25		fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0							
26		pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0							
27		benzo[a]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3							
28		chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9							
29		benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2							
30		benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9							
31		benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8							
32		indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5							
33		dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3							
34		benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2							
35		monohydric phenols				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
				P1186							
Total:									0.0202 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: SA09-0.30-03/11/2022

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample PASSES the Inert (Inert waste landfill) criteria.

The sample PASSES the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	0.9	3	5	6
2	LOI (loss on ignition)	%	3.5	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	6.6	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.1	0.5	2	25
10	barium	mg/kg	<0.2	20	100	300
11	cadmium	mg/kg	<0.005	0.04	1	5
12	chromium	mg/kg	<0.05	0.5	10	70
13	copper	mg/kg	<0.1	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	<0.01	0.5	10	30
16	nickel	mg/kg	<0.07	0.4	10	40
17	lead	mg/kg	<0.05	0.5	10	50
18	antimony	mg/kg	<0.05	0.06	0.7	5
19	selenium	mg/kg	<0.05	0.1	0.5	7
20	zinc	mg/kg	0.23	4	50	200
21	chloride	mg/kg	29	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	31	1,000	20,000	50,000
24	phenol index	mg/kg	0.2	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	158	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	280	4,000	60,000	100,000

Key

	User supplied data
	Not applicable

Classification of sample: SA11-0.90-03/11/2022



Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
SA11-0.90-03/11/2022	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.90 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
20.4%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 20.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }				4 mg/kg	1.32	4.204 mg/kg	0.00042 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				9 mg/kg	1.462	10.471 mg/kg	0.00105 %	✓	
		215-160-9	1308-38-9							
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<2 mg/kg	2.27	<4.54 mg/kg	<0.000454 %		<LOD
	024-017-00-8									
5	copper { dicopper oxide; copper (I) oxide }				5 mg/kg	1.126	4.481 mg/kg	0.000448 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
6	lead { lead chromate }			1	11 mg/kg	1.56	13.658 mg/kg	0.000876 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
7	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
8	nickel { nickel chromate }				<3 mg/kg	2.976	<8.929 mg/kg	<0.000893 %		<LOD
	028-035-00-7	238-766-5	14721-18-7							
9	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
10	zinc { zinc chromate }				12 mg/kg	2.774	26.499 mg/kg	0.00265 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
11	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
			TPH							
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							
13	benzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
14	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
15	ethylbenzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-023-00-4	202-849-4	100-41-4							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
17	 cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<2 mg/kg	1.884	<3.768 mg/kg	<0.000377 %		<LOD
18	 pH		PH		6.9 pH		6.9 pH	6.9 pH		
19	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
20	 acenaphthylene	205-917-1	208-96-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
21	 acenaphthene	201-469-6	83-32-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
22	 fluorene	201-695-5	86-73-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	 phenanthrene	201-581-5	85-01-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	 anthracene	204-371-1	120-12-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	 fluoranthene	205-912-4	206-44-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
26	 pyrene	204-927-3	129-00-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
27	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
28	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
29	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
30	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
31	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
32	 indeno[123-cd]pyrene	205-893-2	193-39-5		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
33	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
34	 benzo[ghi]perylene	205-883-8	191-24-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
35	 monohydric phenols		P1186		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
Total:								0.0124 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: SA11-0.90-03/11/2022

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample PASSES the Inert (Inert waste landfill) criteria.

The sample PASSES the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	0.2	3	5	6
2	LOI (loss on ignition)	%	3.9	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	6.9	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.1	0.5	2	25
10	barium	mg/kg	<0.2	20	100	300
11	cadmium	mg/kg	<0.005	0.04	1	5
12	chromium	mg/kg	<0.05	0.5	10	70
13	copper	mg/kg	<0.1	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	<0.01	0.5	10	30
16	nickel	mg/kg	<0.07	0.4	10	40
17	lead	mg/kg	<0.05	0.5	10	50
18	antimony	mg/kg	<0.05	0.06	0.7	5
19	selenium	mg/kg	<0.05	0.1	0.5	7
20	zinc	mg/kg	0.29	4	50	200
21	chloride	mg/kg	31	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	27	1,000	20,000	50,000
24	phenol index	mg/kg	<0.1	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	137	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	260	4,000	60,000	100,000

Key

	User supplied data
	Not applicable

Classification of sample: TP03-0.20-03/11/2022

Non Hazardous Waste
Classified as 17 05 04
in the List of Waste

Sample details

Sample name: **TP03-0.20-03/11/2022** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: **0.20 m** Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: **19.1%**
(wet weight correction)

Hazard properties

None identified

Determinands

Moisture content: 19.1% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	4 mg/kg	1.32	4.273 mg/kg	0.000427 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	10 mg/kg	1.462	11.824 mg/kg	0.00118 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8			<2 mg/kg	2.27	<4.54 mg/kg	<0.000454 %		<LOD
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	10 mg/kg	1.126	9.108 mg/kg	0.000911 %	✓	
6	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	23 mg/kg	1.56	29.023 mg/kg	0.00186 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
8	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	4 mg/kg	2.976	9.631 mg/kg	0.000963 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5	<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
10	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	37 mg/kg	2.774	83.039 mg/kg	0.0083 %	✓	
11	TPH (C6 to C40) petroleum group			TPH	<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
13	benzene	601-020-00-8	200-753-7	71-43-2	<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
15	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
16		xylene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]								
17	 cyanides {  salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }					<2 mg/kg	1.884	<3.768 mg/kg	<0.000377 %		<LOD
		006-007-00-5									
18	 pH					7.4 pH		7.4 pH	7.4 pH		
				PH							
19		naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3							
20	 acenaphthylene					<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8							
21	 acenaphthene					<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9							
22	 fluorene					<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7							
23	 phenanthrene					<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			201-581-5	85-01-8							
24	 anthracene					<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			204-371-1	120-12-7							
25	 fluoranthene					<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0							
26	 pyrene					<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0							
27		benzo[a]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3							
28		chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9							
29		benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2							
30		benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9							
31		benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8							
32	 indeno[123-cd]pyrene					<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5							
33		dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3							
34	 benzo[ghi]perylene					<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2							
35	 monohydric phenols					<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
				P1186							
Total:									0.0197 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: TP03-0.20-03/11/2022

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample **PASSES** the Inert (Inert waste landfill) criteria.

The sample **PASSES** the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	1	3	5	6
2	LOI (loss on ignition)	%	3.3	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	7.4	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.1	0.5	2	25
10	barium	mg/kg	<0.2	20	100	300
11	cadmium	mg/kg	<0.005	0.04	1	5
12	chromium	mg/kg	<0.05	0.5	10	70
13	copper	mg/kg	<0.1	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	<0.01	0.5	10	30
16	nickel	mg/kg	<0.07	0.4	10	40
17	lead	mg/kg	<0.05	0.5	10	50
18	antimony	mg/kg	<0.05	0.06	0.7	5
19	selenium	mg/kg	<0.05	0.1	0.5	7
20	zinc	mg/kg	0.27	4	50	200
21	chloride	mg/kg	24	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	18	1,000	20,000	50,000
24	phenol index	mg/kg	<0.1	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	130	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	260	4,000	60,000	100,000

Key

	User supplied data
	Not applicable

Classification of sample: TP13-0.80-03/11/2022



Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
TP13-0.80-03/11/2022	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.80 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
17.6%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 17.6% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }				9 mg/kg	1.32	9.792 mg/kg	0.000979 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				20 mg/kg	1.462	24.086 mg/kg	0.00241 %	✓	
		215-160-9	1308-38-9							
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<2 mg/kg	2.27	<4.54 mg/kg	<0.000454 %		<LOD
	024-017-00-8									
5	copper { dicopper oxide; copper (I) oxide }				9 mg/kg	1.126	8.35 mg/kg	0.000835 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
6	lead { lead chromate }			1	10 mg/kg	1.56	12.853 mg/kg	0.000824 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
7	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
8	nickel { nickel chromate }				11 mg/kg	2.976	26.977 mg/kg	0.0027 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
9	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
10	zinc { zinc chromate }				40 mg/kg	2.774	91.436 mg/kg	0.00914 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
11	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
			TPH							
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							
13	benzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
14	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
15	ethylbenzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-023-00-4	202-849-4	100-41-4							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
17	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<2 mg/kg	1.884	<3.768 mg/kg	<0.000377 %		<LOD
18	pH		PH		7.7 pH		7.7 pH	7.7 pH		
19	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
20	acenaphthylene 205-917-1	208-96-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
21	acenaphthene 201-469-6	83-32-9			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
22	fluorene 201-695-5	86-73-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	phenanthrene 201-581-5	85-01-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	anthracene 204-371-1	120-12-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	fluoranthene 205-912-4	206-44-0			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
26	pyrene 204-927-3	129-00-0			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
27	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
28	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
29	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
30	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
31	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
32	indeno[123-cd]pyrene 205-893-2	193-39-5			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
33	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
34	benzo[ghi]perylene 205-883-8	191-24-2			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
35	monohydric phenols P1186				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
Total:								0.0229 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: TP13-0.80-03/11/2022

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample PASSES the Inert (Inert waste landfill) criteria.

The sample PASSES the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	<0.1	3	5	6
2	LOI (loss on ignition)	%	3	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	7.7	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.1	0.5	2	25
10	barium	mg/kg	<0.2	20	100	300
11	cadmium	mg/kg	<0.005	0.04	1	5
12	chromium	mg/kg	<0.05	0.5	10	70
13	copper	mg/kg	<0.1	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	<0.01	0.5	10	30
16	nickel	mg/kg	<0.07	0.4	10	40
17	lead	mg/kg	<0.05	0.5	10	50
18	antimony	mg/kg	<0.05	0.06	0.7	5
19	selenium	mg/kg	<0.05	0.1	0.5	7
20	zinc	mg/kg	0.22	4	50	200
21	chloride	mg/kg	19	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	16	1,000	20,000	50,000
24	phenol index	mg/kg	0.1	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	83.1	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	440	4,000	60,000	100,000

Key

	User supplied data
	Not applicable

Classification of sample: TP20-0.20-03/11/2022

 **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
TP20-0.20-03/11/2022	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.20 m	
Moisture content:	
21.4%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 21.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	6 mg/kg	1.32	6.227 mg/kg	0.000623 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	14 mg/kg	1.462	16.083 mg/kg	0.00161 %	✓	
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8			<2 mg/kg	2.27	<4.54 mg/kg	<0.000454 %		<LOD
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	13 mg/kg	1.126	11.504 mg/kg	0.00115 %	✓	
6	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	30 mg/kg	1.56	36.78 mg/kg	0.00236 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
8	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	5 mg/kg	2.976	11.697 mg/kg	0.00117 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5	<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
10	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	46 mg/kg	2.774	100.302 mg/kg	0.01 %	✓	
11	TPH (C6 to C40) petroleum group			TPH	<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
13	benzene	601-020-00-8	200-753-7	71-43-2	<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
15	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
17	 cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<2 mg/kg	1.884	<3.768 mg/kg	<0.000377 %		<LOD
18	 pH		PH		7.2 pH		7.2 pH	7.2 pH		
19	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
20	 acenaphthylene 205-917-1	208-96-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
21	 acenaphthene 201-469-6	83-32-9			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
22	 fluorene 201-695-5	86-73-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	 phenanthrene 201-581-5	85-01-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	 anthracene 204-371-1	120-12-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	 fluoranthene 205-912-4	206-44-0			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
26	 pyrene 204-927-3	129-00-0			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
27	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
28	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
29	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
30	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
31	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
32	 indeno[123-cd]pyrene 205-893-2	193-39-5			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
33	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
34	 benzo[ghi]perylene 205-883-8	191-24-2			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
35	 monohydric phenols P1186				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
Total:								0.023 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: TP20-0.20-03/11/2022

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample **PASSES** the Inert (Inert waste landfill) criteria.

The sample **PASSES** the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	1.9	3	5	6
2	LOI (loss on ignition)	%	5.3	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	7.2	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.1	0.5	2	25
10	barium	mg/kg	<0.2	20	100	300
11	cadmium	mg/kg	<0.005	0.04	1	5
12	chromium	mg/kg	<0.05	0.5	10	70
13	copper	mg/kg	<0.1	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	<0.01	0.5	10	30
16	nickel	mg/kg	<0.07	0.4	10	40
17	lead	mg/kg	<0.05	0.5	10	50
18	antimony	mg/kg	<0.05	0.06	0.7	5
19	selenium	mg/kg	<0.05	0.1	0.5	7
20	zinc	mg/kg	0.27	4	50	200
21	chloride	mg/kg	25	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	22	1,000	20,000	50,000
24	phenol index	mg/kg	<0.1	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	141	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	260	4,000	60,000	100,000

Key

	User supplied data
	Not applicable

Classification of sample: TP24-0.70-03/11/2022



Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
TP24-0.70-03/11/2022	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.70 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
29.1%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 29.1% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }				6 mg/kg	1.32	5.617 mg/kg	0.000562 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				9 mg/kg	1.462	9.326 mg/kg	0.000933 %	✓	
		215-160-9	1308-38-9							
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<2 mg/kg	2.27	<4.54 mg/kg	<0.000454 %		<LOD
	024-017-00-8									
5	copper { dicopper oxide; copper (I) oxide }				9 mg/kg	1.126	7.184 mg/kg	0.000718 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
6	lead { lead chromate }			1	13 mg/kg	1.56	14.377 mg/kg	0.000922 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
7	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
8	nickel { nickel chromate }				4 mg/kg	2.976	8.441 mg/kg	0.000844 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
9	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
10	zinc { zinc chromate }				15 mg/kg	2.774	29.503 mg/kg	0.00295 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
11	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
			TPH							
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							
13	benzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
14	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
15	ethylbenzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-023-00-4	202-849-4	100-41-4							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
17	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<2 mg/kg	1.884	<3.768 mg/kg	<0.000377 %		<LOD
18	pH		PH		6.7 pH		6.7 pH	6.7 pH		
19	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
20	acenaphthylene 205-917-1	208-96-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
21	acenaphthene 201-469-6	83-32-9			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
22	fluorene 201-695-5	86-73-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	phenanthrene 201-581-5	85-01-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	anthracene 204-371-1	120-12-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	fluoranthene 205-912-4	206-44-0			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
26	pyrene 204-927-3	129-00-0			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
27	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
28	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
29	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
30	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
31	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
32	indeno[123-cd]pyrene 205-893-2	193-39-5			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
33	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
34	benzo[ghi]perylene 205-883-8	191-24-2			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
35	monohydric phenols P1186				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
Total:								0.013 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: TP24-0.70-03/11/2022

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample **PASSES** the Inert (Inert waste landfill) criteria.

The sample **PASSES** the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	0.3	3	5	6
2	LOI (loss on ignition)	%	4.5	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	6.7	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.1	0.5	2	25
10	barium	mg/kg	<0.2	20	100	300
11	cadmium	mg/kg	<0.005	0.04	1	5
12	chromium	mg/kg	<0.05	0.5	10	70
13	copper	mg/kg	<0.1	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	<0.01	0.5	10	30
16	nickel	mg/kg	<0.07	0.4	10	40
17	lead	mg/kg	<0.05	0.5	10	50
18	antimony	mg/kg	<0.05	0.06	0.7	5
19	selenium	mg/kg	<0.05	0.1	0.5	7
20	zinc	mg/kg	0.33	4	50	200
21	chloride	mg/kg	28	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	76	1,000	20,000	50,000
24	phenol index	mg/kg	0.1	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	119	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	300	4,000	60,000	100,000

Key

	User supplied data
	Not applicable

Classification of sample: TP28-0.40-03/11/2022

Non Hazardous Waste
Classified as 17 05 04
in the List of Waste

Sample details

Sample name:	LoW Code:
TP28-0.40-03/11/2022	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.40 m	
Moisture content:	
21.3%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 21.3% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	5 mg/kg	1.32	5.195 mg/kg	0.00052 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }	215-160-9	1308-38-9		16 mg/kg	1.462	18.404 mg/kg	0.00184 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8			<2 mg/kg	2.27	<4.54 mg/kg	<0.000454 %		<LOD
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	5 mg/kg	1.126	4.43 mg/kg	0.000443 %	✓	
6	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	9 mg/kg	1.56	11.048 mg/kg	0.000708 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
8	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	7 mg/kg	2.976	16.396 mg/kg	0.00164 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5	<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
10	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	28 mg/kg	2.774	61.131 mg/kg	0.00611 %	✓	
11	TPH (C6 to C40) petroleum group			TPH	<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
13	benzene	601-020-00-8	200-753-7	71-43-2	<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
15	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
17	 cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<2 mg/kg	1.884	<3.768 mg/kg	<0.000377 %		<LOD
18	 pH		PH		7.2 pH		7.2 pH	7.2 pH		
19	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
20	 acenaphthylene	205-917-1	208-96-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
21	 acenaphthene	201-469-6	83-32-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
22	 fluorene	201-695-5	86-73-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	 phenanthrene	201-581-5	85-01-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	 anthracene	204-371-1	120-12-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	 fluoranthene	205-912-4	206-44-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
26	 pyrene	204-927-3	129-00-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
27	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
28	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
29	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
30	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
31	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
32	 indeno[123-cd]pyrene	205-893-2	193-39-5		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
33	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
34	 benzo[ghi]perylene	205-883-8	191-24-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
35	 monohydric phenols		P1186		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
Total:								0.0173 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: TP28-0.40-03/11/2022

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample **PASSES** the Inert (Inert waste landfill) criteria.

The sample **PASSES** the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	0.7	3	5	6
2	LOI (loss on ignition)	%	2.9	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	7.2	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.1	0.5	2	25
10	barium	mg/kg	<0.2	20	100	300
11	cadmium	mg/kg	<0.005	0.04	1	5
12	chromium	mg/kg	<0.05	0.5	10	70
13	copper	mg/kg	<0.1	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	<0.01	0.5	10	30
16	nickel	mg/kg	<0.07	0.4	10	40
17	lead	mg/kg	<0.05	0.5	10	50
18	antimony	mg/kg	<0.05	0.06	0.7	5
19	selenium	mg/kg	<0.05	0.1	0.5	7
20	zinc	mg/kg	0.3	4	50	200
21	chloride	mg/kg	24	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	25	1,000	20,000	50,000
24	phenol index	mg/kg	0.1	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	108	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	180	4,000	60,000	100,000

Key

	User supplied data
	Not applicable

Classification of sample: TP40-0.80-03/11/2022



Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
TP40-0.80-03/11/2022	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.80 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
20.1%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 20.1% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }				4 mg/kg	1.32	4.22 mg/kg	0.000422 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				8 mg/kg	1.462	9.342 mg/kg	0.000934 %	✓	
		215-160-9	1308-38-9							
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<2 mg/kg	2.27	<4.54 mg/kg	<0.000454 %		<LOD
	024-017-00-8									
5	copper { dicopper oxide; copper (I) oxide }				4 mg/kg	1.126	3.598 mg/kg	0.00036 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
6	lead { lead chromate }			1	8 mg/kg	1.56	9.97 mg/kg	0.000639 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
7	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
8	nickel { nickel chromate }				<3 mg/kg	2.976	<8.929 mg/kg	<0.000893 %		<LOD
	028-035-00-7	238-766-5	14721-18-7							
9	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
10	zinc { zinc chromate }				8 mg/kg	2.774	17.732 mg/kg	0.00177 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
11	TPH (C6 to C40) petroleum group				<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
			TPH							
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							
13	benzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
14	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
15	ethylbenzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-023-00-4	202-849-4	100-41-4							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
17	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<2 mg/kg	1.884	<3.768 mg/kg	<0.000377 %		<LOD
18	pH		PH		7.2 pH		7.2 pH	7.2 pH		
19	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
20	acenaphthylene 205-917-1	208-96-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
21	acenaphthene 201-469-6	83-32-9			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
22	fluorene 201-695-5	86-73-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	phenanthrene 201-581-5	85-01-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	anthracene 204-371-1	120-12-7			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	fluoranthene 205-912-4	206-44-0			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
26	pyrene 204-927-3	129-00-0			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
27	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
28	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
29	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
30	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
31	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
32	indeno[123-cd]pyrene 205-893-2	193-39-5			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
33	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
34	benzo[ghi]perylene 205-883-8	191-24-2			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
35	monohydric phenols P1186				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
Total:								0.0111 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: TP40-0.80-03/11/2022

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample **PASSES** the Inert (Inert waste landfill) criteria.

The sample **PASSES** the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	0.6	3	5	6
2	LOI (loss on ignition)	%	3	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	7.2	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.1	0.5	2	25
10	barium	mg/kg	<0.2	20	100	300
11	cadmium	mg/kg	<0.005	0.04	1	5
12	chromium	mg/kg	<0.05	0.5	10	70
13	copper	mg/kg	<0.1	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	<0.01	0.5	10	30
16	nickel	mg/kg	<0.07	0.4	10	40
17	lead	mg/kg	<0.05	0.5	10	50
18	antimony	mg/kg	<0.05	0.06	0.7	5
19	selenium	mg/kg	<0.05	0.1	0.5	7
20	zinc	mg/kg	0.24	4	50	200
21	chloride	mg/kg	26	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	41	1,000	20,000	50,000
24	phenol index	mg/kg	0.2	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	99.6	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	260	4,000	60,000	100,000

Key

	User supplied data
	Not applicable

Classification of sample: TP43-0.30-03/11/2022

✓ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name: **TP43-0.30-03/11/2022** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: **0.30 m** Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: **21.1%**
(wet weight correction)

Hazard properties

None identified

Determinands

Moisture content: 21.1% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	4 mg/kg	1.32	4.167 mg/kg	0.000417 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }	215-160-9	1308-38-9		9 mg/kg	1.462	10.379 mg/kg	0.00104 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8			<2 mg/kg	2.27	<4.54 mg/kg	<0.000454 %		<LOD
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	11 mg/kg	1.126	9.772 mg/kg	0.000977 %	✓	
6	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	23 mg/kg	1.56	28.306 mg/kg	0.00181 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
8	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	4 mg/kg	2.976	9.393 mg/kg	0.000939 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5	<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
10	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	38 mg/kg	2.774	83.174 mg/kg	0.00832 %	✓	
11	TPH (C6 to C40) petroleum group			TPH	<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
13	benzene	601-020-00-8	200-753-7	71-43-2	<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
15	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
17	 cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<2 mg/kg	1.884	<3.768 mg/kg	<0.000377 %		<LOD
18	 pH		PH		7.3 pH		7.3 pH	7.3 pH		
19	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
20	 acenaphthylene	205-917-1	208-96-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
21	 acenaphthene	201-469-6	83-32-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
22	 fluorene	201-695-5	86-73-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
23	 phenanthrene	201-581-5	85-01-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
24	 anthracene	204-371-1	120-12-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
25	 fluoranthene	205-912-4	206-44-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
26	 pyrene	204-927-3	129-00-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
27	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
28	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
29	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
30	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
31	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
32	 indeno[123-cd]pyrene	205-893-2	193-39-5		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
33	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
34	 benzo[ghi]perylene	205-883-8	191-24-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
35	 monohydric phenols		P1186		<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
Total:								0.0196 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: TP43-0.30-03/11/2022

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample PASSES the Inert (Inert waste landfill) criteria.

The sample PASSES the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	1	3	5	6
2	LOI (loss on ignition)	%	4.3	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	7.3	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.1	0.5	2	25
10	barium	mg/kg	<0.2	20	100	300
11	cadmium	mg/kg	<0.005	0.04	1	5
12	chromium	mg/kg	<0.05	0.5	10	70
13	copper	mg/kg	<0.1	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	<0.01	0.5	10	30
16	nickel	mg/kg	<0.07	0.4	10	40
17	lead	mg/kg	<0.05	0.5	10	50
18	antimony	mg/kg	<0.05	0.06	0.7	5
19	selenium	mg/kg	<0.05	0.1	0.5	7
20	zinc	mg/kg	0.29	4	50	200
21	chloride	mg/kg	31	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	38	1,000	20,000	50,000
24	phenol index	mg/kg	0.2	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	202	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	380	4,000	60,000	100,000

Key

	User supplied data
	Not applicable

Appendix A: Classifier defined and non GB MCL determinands

• chromium(III) oxide (worst case) (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database

Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806>

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H332, Acute Tox. 4; H302, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Resp. Sens. 1; H334, Skin Sens. 1; H317, Repr. 1B; H360FD, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

• TPH (C6 to C40) petroleum group (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: Flam. Liq. 3; H226, Asp. Tox. 1; H304, STOT RE 2; H373, Muta. 1B; H340, Carc. 1B; H350, Repr. 2; H361d, Aquatic Chronic 2; H411

• ethylbenzene (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4

Description/Comments:

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

• salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

GB MCL index number: 006-007-00-5

Description/Comments: Conversion factor based on a worst case compound: sodium cyanide

Additional Hazard Statement(s): EUH032 >= 0.2 %

Reason for additional Hazards Statement(s):

20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

• pH (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

• acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H302, Acute Tox. 1; H330, Acute Tox. 1; H310, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315

• acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Aquatic Chronic 2; H411

• fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410

• phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Acute Tox. 4; H302, Eye Irrit. 2; H319, STOT SE 3; H335, Carc. 2; H351, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Skin Irrit. 2; H315

• anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

• **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2; H351

• **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• **monohydric phenols** (CAS Number: P1186)

Description/Comments: Combined hazards statements from harmonised entries in CLP for phenol, cresols and xylenols (604-001-00-2, 604-004-00-9, 604-006-00-X)
Data source: CLP combined data
Data source date: 26 Mar 2019
Hazard Statements: Muta. 2; H341 , Acute Tox. 3; H331 , Acute Tox. 3; H311 , Acute Tox. 3; H301 , STOT RE 2; H373 , Skin Corr. 1B; H314 , Skin Corr. 1B; H314 >= 3 % , Skin Irrit. 2; H315 1 £ conc. < 3 % , Eye Irrit. 2; H319 1 £ conc. < 3 % , Aquatic Chronic 2; H411

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc (zinc chromate)

Worst case CLP species based on hazard statements/molecular weight (edit as required)

cyanides (salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex)

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.2.GB - Oct 2021**

HazWasteOnline Classification Engine Version: 2023.11.5483.10161 (11 Jan 2023)

HazWasteOnline Database: 2023.11.5483.10161 (11 Jan 2023)

This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

CLP Regulation - Regulation 1272/2008/EC of 16 December 2008

1st ATP - Regulation 790/2009/EC of 10 August 2009

2nd ATP - Regulation 286/2011/EC of 10 March 2011

3rd ATP - Regulation 618/2012/EU of 10 July 2012

4th ATP - Regulation 487/2013/EU of 8 May 2013

Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013

5th ATP - Regulation 944/2013/EU of 2 October 2013

6th ATP - Regulation 605/2014/EU of 5 June 2014

WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014

Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014

7th ATP - Regulation 2015/1221/EU of 24 July 2015

8th ATP - Regulation (EU) 2016/918 of 19 May 2016

9th ATP - Regulation (EU) 2016/1179 of 19 July 2016

10th ATP - Regulation (EU) 2017/776 of 4 May 2017

HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017

13th ATP - Regulation (EU) 2018/1480 of 4 October 2018

14th ATP - Regulation (EU) 2020/217 of 4 October 2019

15th ATP - Regulation (EU) 2020/1182 of 19 May 2020

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit)

Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020

The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021



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