

Appendix 14.1

AGRICULTURAL LAND CLASSIFICATION



Agricultural Land Classification:

Begbroke Innovation District, Oxfordshire

Prepared for: Oxford University Developments

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1 INTRODUCTION

1.1 Background

1.1.1 This report was commissioned by Oxford University Developments to determine the quality of agricultural land at Begbroke, Oxfordshire, OX5 1PG ('the Site'). The assessment was made in accordance with the Agricultural Land Classification (ALC) system for England and Wales (see 'Methodology' below). The approximately 172 hectare (ha) Site is located to the southwest of Kidlington, Oxfordshire, as shown on **Figure 1**. The approximate centre of the Site is located at British National Grid (BNG) reference SP 481 132.

1.2 Competency

1.2.1 The work has been carried out by a Chartered Scientist (CSci), who is a Fellow (F.I. Soil Sci) of the British Society of Soil Science (BSSS). The soil surveyor meets the requirements of the BSSS Professional Competency Standard (PCS) scheme for ALC (see BSSS PCS Document 2 'Agricultural Land Classification of England and Wales'¹. The BSSS PCS scheme is endorsed, amongst others, by the Department for Environment, Food and Rural Affairs (Defra), Natural England, the Science Council, and the Institute of Environmental Assessment and Management (IEMA).

1.3 Methodology

- 1.3.1 The ALC system provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. The ALC system divides agricultural land into five grades (Grade 1 'Excellent' to Grade 5 'Very Poor'), with Grade 3 subdivided into Subgrade 3a 'Good' and Subgrade 3b 'Moderate'. Agricultural land classified as Grade 1, 2 and Subgrade 3a falls in the 'best and most versatile' category in Paragraph 174 and 175 of the National Planning Policy Framework (NPPF) revised in July 2021. Further details of the ALC system and national planning policy implications are set out in Natural England's 'Guide to assessing development proposals on agricultural land' online².
- 1.3.2 A detailed soil survey and ALC of the Site was carried out in February 2023. The ALC survey involved examination of the soil's physical properties at 166 auger-bore locations on an approximate 100 m grid pattern, at a sampling density of approximately 1 auger bore per ha. The soil profile was examined at each sample location to a maximum depth of approximately 1.2 m by hand with the use of a 5cm diameter Dutch (Edleman) soil auger. Five soil pits (1-5) were excavated by hand with a spade in order to examine certain soil physical properties, such as stone content and the structural condition of the subsoil, more closely. The location of each auger-bore and soil pit is shown on **Figure 1**.
- 1.3.3 The auger-bore locations were located using a hand-held Garmin E-Trec Geographic Information System (GIS) to enable the sample locations to be relocated for verification, if

necessary. Where auger locations on a 100 m grid pattern fall on headland, tramlines, or within 3 m of a hedgerow or tree, they were relocated on agricultural land close by, i.e., to avoid compacted ground or land affected by tree roots, etc.

- 1.3.4 The soil profile at each sample location was described using the 'Soil Survey Field Handbook:

 Describing and Sampling Soil Profiles' (Ed. J.M. Hodgson, Cranfield University, 1997)³. Each soil profile was ascribed an Agricultural Land Classification (ALC) grade following the MAFF ALC Guidelines. A log of all the soil profiles examined and recorded on Site is given as **Appendix 1**.

 A description of each soil pit is given in **Appendix 2**.
- 1.3.5 A sample of topsoil was collected at eleven auger-bore locations, i.e., A13, A16, B32, C49, D74, E93, F016, F111, G130, G139, and H158, as shown on Figure 1. The samples were sent to an accredited laboratory for particle size analysis, i.e., the proportions of sand, silt and clay. This is to determine the definitive texture class of the topsoil, especially with regard to distinguishing between medium clay loams (i.e., <27% clay) and heavy clay loams (27% to 35% clay). A laboratory report setting out the findings of the topsoil texture analysis is given as Appendix 3.</p>

1.4 Structure of the Remainder of this Report

- 1.4.1 The remainder of this report is structured as follows:
 - Section 2 Planning Policy Framework
 - Section 3 Agricultural Land Classification;
 - Climate;
 - Site (Gradient, Micro-relief, Risk of Flooding);
 - Soil (Geology, Soil Properties);
 - Interactive Limitations (Soil Droughtiness, Soil Wetness);
 - ALC Grading at the Site.
 - Section 4 ALC at the Site in a Wider Geographical Context; and
 - Section 5 Summary and Conclusions.

2 NATIONAL PLANNING POLICY FRAMEWORK AND RELEVANT GUIDANCE

2.1 Background

2.1.1 This section of the report sets out the national and local planning framework in which to assess the opportunities and constraints to development at the Site in agricultural land quality terms.

2.2 National Planning Policy Statement (NPPF) July 2021

2.2.1 National planning policy guidance on development involving agricultural land is set out in National Planning Policy Framework (NPPF), which was revised on the 20th July 2021. The NPPF aims to provide a simplified planning framework which sets out the Government's economic, environmental and social planning policies for England. The NPPF includes policy on 'Conserving and Enhancing the Natural Environment' (Section 15). Paragraph 174 (a and b) (page 50) are of relevance to this assessment of agricultural land quality and soil and states that:

'174...Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;...'

2.2.2 Paragraph 175 of the NPPF (2021) goes on to describe that:

'175. PlanS should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework 53 ...'

2.2.3 Footnote number 58 states that:

'Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality.'

2.3 Development Plan Policy

2.3.1 The Site is located in Cherwell District. The Cherwell District Council (CDC) Adopted Cherwell Local Plan 2011 – 2031 (Part 1) includes Policy Kidlington 1: Accommodating High Value Employment Needs which states in part that 'An assessment of whether the site contains best and most versatile agricultural land, including a detailed survey where necessary'; and 'A soil management plan may be required to be submitted with planning applications to ensure that soils will be retained onsite and used where possible.'

2.3.2 Also of relevance is the Adopted Cherwell Local Plan 2011-2031 (Part 1) Partial Review – Oxford's Unmet Housing Need. Key Delivery Requirements of proposed development policies PR6a, PR6b, PR6c, PR7a, PR7b, PR8, and PR9 state the '....application should include a management plan for the appropriate re-use and improvement of soils...'

2.4 Soils Functions and Soil Health

- 2.4.1 Aims and objectives for safeguarding and, where possible, improving soil health are set out in the Government's 'Safeguarding our soils: A strategy for England'⁴. The Soil Strategy for England, which builds on Defra's 'Soil Action Plan for England (2004-2006), sets out an ambitious vision to protect and improve soil to meet an increased global demand for food and to help combat the adverse effects of climate change.
- 2.4.2 The Soil Strategy for England states that '...soil is a fundamental and essentially non-renewable natural resource, providing the essential link between the components that make up our environment. Soils vary hugely from region to region and even from field to field. They all perform a number of valuable functions⁵ or ecosystem services⁶ for society'.
- 2.4.3 The main soil functions are:
 - Food and other biomass production;
 - Environmental Interaction: storage (including carbon sequestration), filtering, and transformation;
 - Biological habitat and gene pool;
 - Source of raw materials;
 - Physical and cultural heritage; and
 - Platform for man-made structures: buildings, highways.
- 2.4.4 The vision of the Soil Strategy for England has been developed in the Government's 25 Year Plan for the Environment⁷. Soil is recognised as an important national resource, and the Plan states that:
 - 'We will ensure that resources from nature, such as food, fish and timber, are used more sustainably and efficiently. We will do this (in part) by:
 -improving our approach to soil management: by 2030 we want all of England's soils to be managed sustainably, and we will use natural capital thinking to develop appropriate soil metrics and management approaches...'
- 2.4.5 The maintenance, and improvement, of soil health is therefore a material consideration when deciding if a development is appropriate on agricultural land. Soil health can be defined as a soil's ability to function and sustain plants, animals and humans as part of the ecosystem.

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2.5 Best Practice Guidance

- 2.5.1 This assessment of agricultural land and soil has drawn on best practice guidance set out in the key documents below:
 - The Institute of Civil Engineering (ICE) provides guidance on assessing agricultural land quality and soil in the 'Environmental Impact Assessment Handbook: A practical guide for planners, developers and communities'⁸.
 - The Institute of Environmental Assessment and Management (IEMA) has produced a 'New Perspective on Land and Soil in Environmental Assessment'⁹, which encourages a new approach a new approach to assessing soil functions, ecosystem services and natural capital provided by land and soils.
 - The Department for Environment, Food and Rural Affairs (Defra) has published 'Safeguarding our Soils A Strategy for England' (24th September 2009)¹⁰. The Soil Strategy was published in tandem with a 'Code of Practice for the Sustainable Use of Soils on Construction Sites'¹¹. The Soil Strategy for England, which builds on Defra's 'Soil Action Plan for England (2004-2006)', sets out an ambitious vision to protect and improve soil to meet an increased global demand for food and to help combat the adverse effects of climate change.
 - This assessment also considers recent guidance produced by the Soils in Planning Construction Task Force (Lancaster University et al) regarding 'Building on soil sustainability: Principles for soils in planning and construction' (September 2022)¹². This report contains guidance for local authorities, contractors, clients, developers and design teams on managing soil in construction and planning. This guidance for conserving soil resources on site follows the principles of sustainable development and the circular economy (defined as 'The circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended. In practice, it implies reducing waste to a minimum. When a product reaches the end of its life, its materials are kept within the economy wherever possible. These can be productively used again and again, thereby creating further value¹³.
 - Best practice for the handling of soil is set out in the Institute of Quarrying (2021) 'Good Practice for Handling Soils in Mineral Workings' (Sheets A to E are of main relevance to this assessment)¹⁴.

3 AGRICULTURAL LAND CLASSIFICATION

3.1 Background

- 3.1.1 This section of the report sets out the findings of the Agricultural Land Classification (ALC). It is based on a desktop study of relevant published information on climate, topography, geology, and soil in conjunction with a soil survey.
- 3.1.2 As described in the ALC Guidelines, the main physical factors influencing agricultural land quality are:
 - climate;
 - site;
 - soil; and
 - interactive limitations.
- 3.1.3 These factors are considered in turn below.

3.2 Climate

3.2.1 Interpolated climate data relevant to the determination of the Agricultural Land Classification (ALC) grade of land at the Site is given in Table 3.1 below.

Table 3.1: ALC Climate Data for Begbroke, Oxfordshire		
Climate Parameter	Grid Ref: SP478140 (North)	Grid Ref: SP484125 (South)
Average Altitude (m)	67	58
Average Annual Rainfall (mm)	658	661
Accumulated Temperature above 0°C (January – June)	1434	1445
Moisture Deficit (mm) Wheat	109	110
Moisture Deficit (mm) Potatoes	101	104
Field Capacity Days (FCD)	143	142
Grade According to Climate	1	1

3.2.2 With reference to Figure 1 'Grade according to climate' on page 6 of the ALC Guidelines, there is no overall climatic limitation to the quality of agricultural land at the Site. This means that agricultural land at the Site could be graded as ALC Grade 1 in overall climatic terms, in the absence of any other limiting factor, i.e., site, soil and/or interactive limitations.

- 3.2.3 Agricultural land at the Site is predicted to be at a range of field capacity (i.e., the amount of soil moisture or water content held in the soil after excess water has drained away) for between 142 and 143 Field Capacity Days (FCD) days per year, mainly over the late autumn, winter and early spring.
- 3.2.4 The combination of topsoil texture, drainage status (Wetness Class) of the profile, and number of FCD affects the degree to which agricultural land is limited by soil wetness. The climate at the Site falls in the 126-150 category (regarding Table 6 of the ALC Guidelines), as described in more detail under 'interactive limitations' below.

3.3 Site

- 3.3.1 The Site is located to the south-west of Kidlington, Oxfordshire. The approximate centre of the Site is located at British National Grid (BNG) reference SP481132. The location and boundaries of the Site are shown on **Figure 1**.
- 3.3.2 With regard to the ALC Guidelines, agricultural land quality can be limited by one or more of three main site factors as follows:
 - gradient;
 - micro-relief (i.e., complex change in slope angle over short distances); and
 - risk of flooding.

I. Gradient and Micro-Relief

3.3.3 The land at the Site is level, with the highest elevation at 71 metres (m) Above Ordnance Datum (AOD) in the north-east of the Site. The lowest elevation at 60 metres mAOD occurs in the south of the Site. The quality of agricultural land at the Site is not limited by gradient (as per Table 1 of the ALC Guidelines, 1988), as the gradient of the slope does not exceed 7°. Likewise, the quality of agricultural land at the Site is not limited by micro-relief, i.e., complex changes in slope angle and direction over short distances.

II. Risk of Flooding

3.3.4 From the Government Flood Map for Planning website¹⁵, the Site is located in Flood Zone 1 with Flood Zone 2 and 3 in the south of the Site with a region in the south east benefitting from flood defences. There is no evidence the quality of the agricultural land is limited by a risk of flooding in accordance with the criteria for frequency and duration set out in Table 2 'Grade according to flood risk in summer', and/or Table 3 'Grade according to flood risk in winter' of the ALC Guidelines.

3.4 Soil

I. Geology/Soil Parent Material

- 3.4.1 British Geological Survey (BGS) information available online¹⁶ has been utilised to identify the Bedrock underlying the Site and any Superficial (Drift) Deposits over the Bedrock. This information helps to determine the parent material¹⁷ from and within which a soil has formed.
- 3.4.2 The BGS information (1:50,000) indicates that Site is mainly underlain by the Oxford Clay Formation and West Walton Formation (mudstone), with Cornbrash Formation (limestone), Kellaways Clay Member Mudstone and Kellaways Sand Member (sandstone and siltstone) in the north.
- 3.4.3 The bedrock in Site is covered by Alluvium (clay, silt, sand and gravel) in the southern and eastern regions of the Site, with Summertown-radley Sand and Gravel Member (sand and gravel) in the north and areas that are uncovered.

II. Published Information on Soil

- 3.4.4 The National Soil Map¹⁸ reports that agricultural land at the Site is covered by soils predominantly in the Sutton 1 and Kelmscot Association.
- 3.4.5 As described by the Soil Survey of England and Wales (SSEW)¹⁹, the Sutton 1 Association often stony, loamy typical argillic brown earths, usually over gravel at moderate depth. The gravels are mainly flint and although the matrix is calcareous, chalk stones are rare. These soils are well drained (Wetness Class I) and excess winter rain drains rapidly through the soil into the underlying permeable gravels.
- 3.4.6 The Kelmscot Association consists mainly of calcareous fine loamy soils over limestone gravel. It is found on low-lying river terrace drift affected at shallow depth by groundwater. Most of the soils are permeable but are affected by shallow groundwater and flooding. Depending on outfalls and field drainage measures, waterlogging may be short-term and confined to winter, or prolonged into the growing season (Wetness Class II to IV).

III. Soil Survey

3.4.7 A log of the 166 soil profiles recorded on Site (see Figure 1) is given as **Appendix 1**. A description of the five soil pits (Soil Pit 1-5) is given as **Appendix 2**. The detailed soil survey determined the central and northern parts of the Site have soils predominantly in the Sutton 1 Association developed in sand and gravel. The Sutton 1 Association consists of well drained fine and coarse (sandy) loam soils which are calcareous locally.

3.4.8 In the east and south-east there are soils which are similar to those described by the SSEW as belonging to the Kelmscot Association. This type of soil consists of calcareous, fine (medium clay loam) loamy soils over gravel variably affected by groundwater.

Topsoil Particle Size Analysis

3.4.8 To substantiate topsoil texture determined during the ALC survey by hand-texturing, a sample of topsoil were collected at eleven auger-bore locations over the Site (i.e., auger bore locations A13, A16, B32, C49, D74, E93, F016, F111, G130, G139, and H158, as shown on Figure 1). The topsoil sample was sent to an accredited laboratory for analysis of particle size distribution (PSD), based on the British Standard Institution particle size grades. The certificate of analysis is provided as Appendix 3. The findings of the PSD analysis are shown in Table 3.2 below:

Table 3.2: Topsoil Te	exture (re Ta	ble 10, ALC (Guidelines)	
Topsoil Sample Location (See Fig. 1)	% sand 0.063-2.0 mm	% silt 0.002- 0.063 mm	% clay <0.002 mm	ALC Soil Texture Class
A13	57	30	13	Medium Sandy Loam
A16	62	28	10	Medium Sandy Loam
B32	59	29	12	Medium Sandy Loam
C49	55	32	13	Medium Sandy Loam
D74	56	31	13	Medium Sandy Loam
E93	50	37	13	Medium Sandy Silt Loam
F016	51	38	11	Medium Sandy Loam
F111	46	41	13	Medium Sandy Silt Loam
G130	47	38	15	Medium Sandy Silt Loam
G139	55	34	11	Medium Sandy Loam
H158	42	42	16	Medium Sandy Silt Loam

3.5 Interactive Limitations

3.5.1 From the published information above, together with the findings of the detailed soil survey, it has been determined that the quality of agricultural land at the Site is limited mainly by soil droughtiness, with some land limited by soil wetness in the south-east.

I. Soil Droughtiness

3.5.2 From the ALC Guidelines, a soil droughtiness limitation exists 'in areas with relatively low rainfall or high evapotranspiration, or where the soil holds only small reserves of moisture available to plant roots.' The ALC grade according to soil droughtiness is shown in Table 3.3 below (based on Table 8 'Grade According to Droughtiness' in the ALC Guidelines). To be eligible for Grades 1 to 3b the moisture balances (MBs) must be equal to, or exceed, the stated minimum values for both wheat and potatoes. If the MB for either crop is less (i.e., more negative) than that shown for Subgrade 3b, the soil is Grade 4 on droughtiness):

Table 3.3: ALC Gr	rade According to Droughtiness (re	e Table 8 of the MAFF ALC Guidelines)
Grade/Subgrade	Moisture Balan	ce (MB) Limits (mm)
	Wheat	Potatoes
1	+30	+10
2	+5	-10
3 a	-20	-30
3b	-50	-55
4	<-50	<-55

- 3.5.3 As shown from the Moisture Balance (MB) values in **Appendix 1**, agricultural land in Grade 2 is mainly limited by slight soil droughtiness during the growing season, and slight soil wetness during the autumn/winter/early spring. The Grade 2 soils are well drained to slightly seasonally waterlogged (the latter mainly in the east) sandy loam, sandy silt loam and clay loams.
- 3.5.4 Subgrade 3a agricultural land is limited by soil droughtiness, due to well drained sandy loam soils over gravelly subsoil.
- 3.5.5 Subgrade 3b agricultural land is limited by soil droughtiness in the west with shallow, well drained sandy loams over gravel.

II. Soil Wetness

3.5.6 From the ALC Guidelines, a soil wetness limitation exists where 'the soil water regime adversely affects plant growth or imposes restrictions on cultivations or grazing by livestock'. Agricultural land quality at the Site is limited by soil wetness according to the combination of (i) number of Field Capacity Days (FCD), (ii) topsoil texture, and (iii) soil wetness class, as set out in Table 3.4 below (based on Table 6 'Grade According to Soil Wetness – Mineral Soils' in the ALC Guidelines):

Wetness Class	Texture of the Top 25 cm							
ı	Sand, Loamy Sand, Sandy Loam, Sandy Silt Loam	1						
	Sandy Clay Loam/Medium Silty Clay Loam /Medium Clay Loam*	1						
	Heavy Clay Loam**	2						
	Sandy Clay/Silty Clay/Clay	3a(2)						
II	Sand, Loamy Sand, Sandy Loam, Sandy Silt Loam	1						
	Sandy Clay Loam/Medium Silty Clay Loam /Medium Clay Loam*	2						
	Heavy Clay Loam**	3a(2)						
	Sandy Clay/Silty Clay/Clay	3b(3a)						
Ш	Sand, Loamy Sand, Sandy Loam, Sandy Silt Loam	2						
	Sandy Clay Loam/Medium Silty Clay Loam /Medium Clay Loam*	3a(2)						
	Heavy Clay Loam**	3b(3a)						
	Sandy Clay/Silty Clay/Clay	3b(3a)						
IV	Sand, Loamy Sand, Sandy Loam, Sandy Silt Loam	3a						
	Sandy Clay Loam/Medium Silty Clay Loam /Medium Clay Loam*	3b						
	Heavy Clay Loam**	3b						
	Sandy Clay/Silty Clay/Clay	3b						

3.5.7 Subgrade 3b agricultural land adjacent to the Oxford Canal in the east is limited by soil wetness, where the soil profiles in Wetness Class IV have medium clay loam topsoil.

3.6 ALC Grading at the Site

3.6.2 A detailed ALC survey has determined that agricultural land at the Site is limited by soil doughtiness to a mixture of Grade 2, Subgrade 3a and Subgrade 3b, and by soil wetness to Subgrade 3b in the south-east. The area of land in each ALC grade has been measured from Figure 2 and the area (ha) and proportion (% of Site) is given in Table 3.5.

Table 3.5: Agricultural Land Class	ification – Begbroke, Oxfordsh	nire
ALC Grade	Area (Ha)	Area (%)
Grade 1 (Excellent)	0	0
Grade 2 (Very Good)	34.0	19.8
Subgrade 3a (Good)	93.9	54.6
Subgrade 3b (Moderate)	24.1	14.0
Grade 4 (Poor)	0	0
Grade 5 (Very Poor)	0	0
Other Land / Non-agricultural	20.0	11.6
Total	172.0	100

4 ALC AT THE SITE IN A WIDER GEOGRAPHICAL CONTEXT

4.1 Introduction

4.1.1 The aim of this section is to examine agricultural land quality at the Site in a national, regional, county and local context.

4.2 Pre-1988 ALC Information

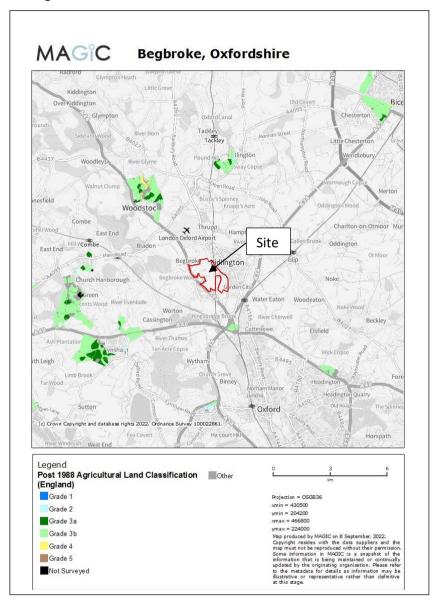
4.2.1 During the 1960's and 1970's MAFF produced a series of maps to show the provisional ALC grade of agricultural land over the whole of England and Wales at a scale of 1:250,000. These provisional ALC maps are suitable for strategic land use planning only, i.e., they appropriate for land areas greater than 80 ha. The provisional MAFF ALC map of South East England (1:250,000, 1984) indicates that the quality of agricultural land at the Site is mainly Grade 2 and Grade 3 (not differentiated between Subgrade 3a and Subgrade 3b), with some Grade 4 in the south-east. The proportion of agricultural land in each of the ALC grades (derived from MAFF provisional or pre-1988 ALC information) in England, South East Government Office, Oxfordshire County, and Cherwell District is shown for comparison in Table 4.1 below.

Table 4.1: Provisional ALC - Grades as % of Total Land A		Regional and Local	Context (Propor	tion of ALC
ALC Grade	England	South East Office	Oxfordshire County	Cherwell District
1 (excellent)	2.7	2.5	0.5	0
2 (very good)	14.2	10.4	19.6	15.9
3 (good to moderate)	48.2	52.4	54.4	51.1
4 (poor)	14.1	16.1	19.3	26.9
5 (very poor)	8.4	1.3	0.4	1.6
Non-Agricultural	5.0	9.6	2.7	2.0
Urban	7.3	7.7	3.1	2.5

4.2.2 Of note, the provisional (Pre 1988) ALC information shows that Cherwell District has slightly higher proportions of Grade 2 and Grade 3 (not differentiated between Subgrade 3a or Subgrade 3b) in comparison with England as a whole.

4.3 Post-1988 ALC Information

4.3.1 The former MAFF has not carried a Post-1988 ALC survey of agricultural land covering the Site. An extract from the Post-1988 Agricultural Land Classification map online²¹ surrounding the Site is given below.



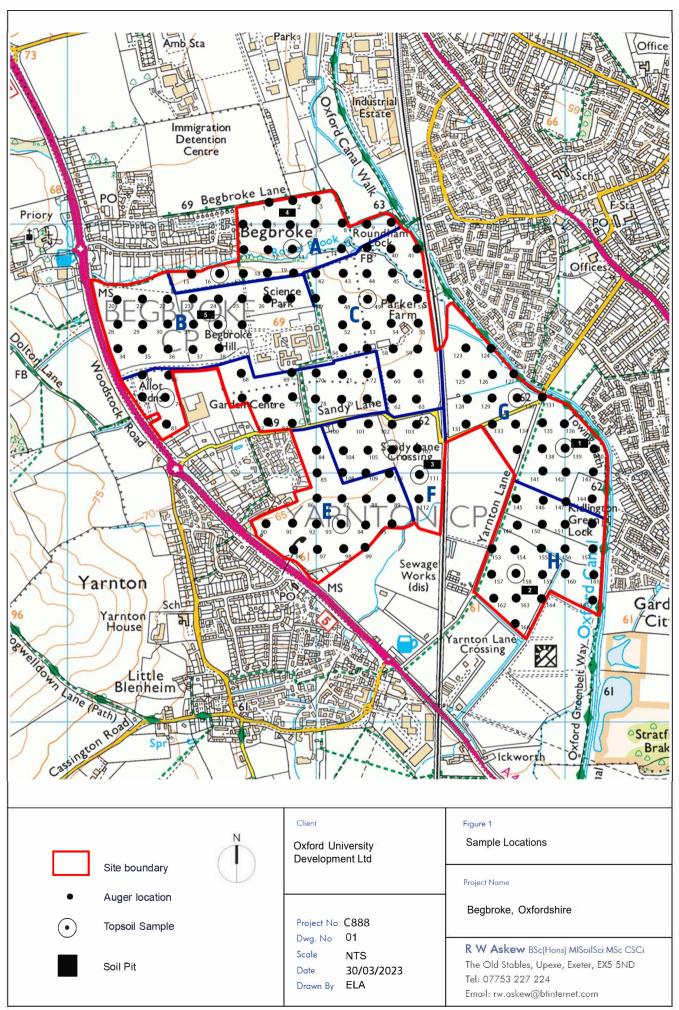
4.3.2 As shown on the Post-1988 ALC survey above, MAFF determined there is mainly Subgrade 3a and Subgrade 3b within an approximately 5km radius of the Site, with some Grade 4 to the north and Grade 2 to the south.

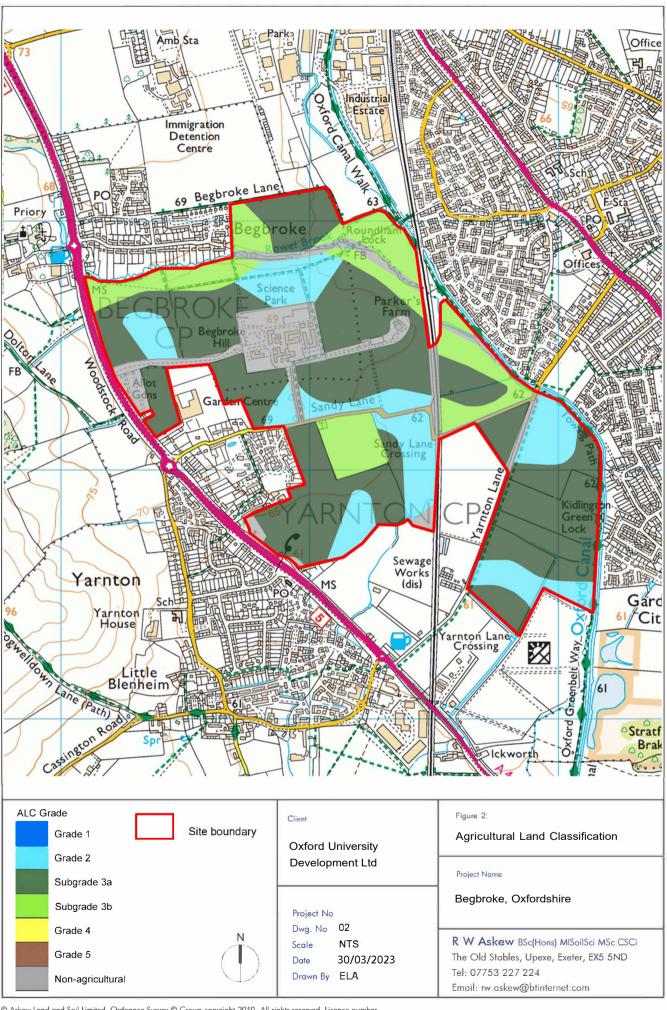
5 SUMMARY AND CONCLUSIONS

- 5.1.1 This report was commissioned by Oxford University Developments to determine the quality of agricultural land at Begbroke, Oxfordshire, OX5 1PG ('the Site'). The assessment was made in accordance with the Agricultural Land Classification (ALC) system for England and Wales. The approximately 172 hectare (ha) Site is located to the south-west of Kidlington, Oxfordshire. The approximate centre of the Site is located at British National Grid (BNG) reference SP 481 132.
- 5.1.2 British Geological Survey (BGS) information (1:50,000) indicates that Site is mainly underlain Oxford Clay Formation and West Walton Formation (mudstone), with Cornbrash Formation (limestone), Kellaways Clay Member Mudstone and Kellaways Sand Member (sandstone and siltstone) in the north. This bedrock is mainly covered by Alluvium (clay, silt, sand and gravel) in the southern and eastern regions of the Site, with Summertown-radley Sand and Gravel Member (sand and gravel) in the north and areas that are uncovered.
- 5.1.3 The National Soil Map (1:250,000) shows the Site is covered by soils predominantly in the Sutton 1 and Kelmscot Association. The Sutton 1 Association consists of often stony, loamy typical argillic brown earths, that are well drained (Wetness Class I). The Kelmscot Association consists mainly of calcareous fine loamy soils that are permeable but are affected by shallow groundwater and flooding (Wetness Class II to IV).
- 5.1.4 The quality of agricultural land at the Site is limited mainly by soil droughtiness, and by soil wetness in the south-east, to a mixture of Grade 2 (i.e., 34.0 ha, or 19.8% of the Site), Subgrade 3a (i.e., 93.9 ha or 54.6% of the Site), and Subgrade 3b (i.e., 24.1 ha, or 14.0% of the Site). Approximately 20.0 ha, or 11.6% of the Site, is classified as non-agricultural, i.e., buildings, roads, allotments, woodland, water bodies/courses.
- 5.1.5 MAFF provisional (Pre-1988) ALC information shows that Cherwell District has slightly higher proportions of Grade 2 and Grade 3 (not differentiated between Subgrade 3a or Subgrade 3b) in comparison with England as a whole.
- 5.1.6 From Post-1988 ALC surveys, MAFF has determined there is mainly Subgrade 3a and Subgrade 3b within an approximately 5km radius of the Site, with some Grade 4 to the north and Grade 2 to the south.

Figures

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Appendix 1: Soil Profile Logs

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Project Number	Project Name				Parcel
C888	Begbroke, Oxt				A-H
	-0				I
Date of Survey	Survey Type		Surveyor(s)	Col	mpany
February 2023	Detailed ALC		RWA, RDM, AR	Asl	kew Land and Soil Ltd
Weather		Relief		Land use and v	vegetation
Dry, Sunny		Level		CER	· ·
Grid Reference			Postcode	Altitude	Area
SP478139			OX51PG	66	189
MAFF prov		MAFF detailed	1	Flooding	
Grade 2/3		None	4	Flood Zone 1	
laan.	ATO	ĪMD	IAD.	FCD	Climata anada
AAR	AT0	MDw	MDp	FCD	Climate grade
658	1436	109	102	143]1
Bedrock			Superficial dep		
Cornrash Formatio	n/Kellaways Sand	Member	Alluvium/Sumn	nertown	
Soil association(s)	1:250.000		Det	ailed soil information	
Sutton 1 / Kelmsco			Nor		
Revision Number			Date Revised		
2			01/06/2023		

Grid ref. NGR X Y Alt (m)	Slope °	Aspect Land us				Matrix Munsell colour	Ochreous Mottles Form Munsell colour	Grey Mottles	Gley		type 1	Stones - type 2 % > 2cm > 6cm Type	Ped Strength Size Shane	SUBS STE	R CaCO	3 Mn C	SPL	Rw MAD-	Gd	Wet WC Gw	Limitation 1 Limit	Final ALC tation 2 Limitation 3 G
SP 47800 14080 447800 214080 66	≤7	NE	0	30		10YR3/3	Form Iwunseii colour	Form Iwunsell colour	No	SCL - San 1		avel with non-porous (hard) ston	es Strength Size Shape	Not Appl	ic NON	NNo	No -2	вw јіхівр 0 -18	3a	WCI 1	Droughtiness	ation 2 Limitation 3 G
				50	20	10YR4/6			No	SCL - San 5	GH - Gr	avel with non-porous (hard) ston	es	Moderat	e NON		No					
			50	120	70					MS - Med 80	GH - Gi	avel with non-porous (hard) ston	es	Moderat	e		No					
P 47900 14080 447900 214080 66	≤7	NE	0	35	35	10YR4/4			No	MSL - Me 1	GH - Gr	avel with non-porous (hard) ston	es	Not Appl	ic NON	- NNo	No -1	7	3a	WCI 1	Droughtiness	3
			35	40	5	10YR4/4			No	SCL - San 5	GH - Gr	avel with non-porous (hard) ston	es	Moderat	e NON	- NNo	No					
			40 70			7.5YR5/6 7.5YR4/4				SCL - San 5 MS - Mec 60	GH - Gi	avel with non-porous (hard) ston avel with non-porous (hard) ston	es	Moderat Moderat	e NON	NNo	No No					
			90		30	7.511(4)4				MS - Mec 80		avel with non-porous (hard) ston		Moderat		14140	No					
SP 48000 14080 448000 214080 67	≤7	NF	0	40	40	10YR4/4			No	SCL - San 2	GH - Gi	avel with non-porous (hard) ston	PS	Not Appl	ic NON	- NNo	No -1	9 -17	3a	WCI 1	Droughtiness	2
			40	45	5	7.5YR4/4			No	SCL - San 10	GH - Gr	avel with non-porous (hard) ston	es	Moderat	e NON		No					
				50 120	5					SCL - San 20 MS - Med 80		avel with non-porous (hard) ston		Moderat Moderat			No No					
			50	120	70					IVIS - IVIEC 80	GH - GI	avel with non-porous (hard) ston	es	ivioderat	e		INO					
SP 47700 14000 447700 214000 68	≤7	NE	0	30	30	10YR4/3			No	SCL - San 3	GH - G	avel with non-porous (hard) ston	PS	Not Appl	ic VSC -	VeNo	No -2	4 -23	3h	WCI 1	Droughtiness	3
				40	10	10YR4/4			No	SCL - San 10	GH - Gr	avel with non-porous (hard) ston	es	Moderat	e VC - V		No -2		30		00g	ľ
			40	50 120	10					SCL - San 30		avel with non-porous (hard) ston		Moderat			No					
			50	120	/0					MS - Med 80	GH - Gi	avel with non-porous (hard) ston	es	Moderat	e		No					
SP 47800 14000 447800 214000 66	≤7	NE	0	30	30	7.5YR4/4			No	MSL - Me 7	GH C	avel with non-porous (hard) ston	or .	Not Appl	ic sc . s	lig No	No. 4	1 -12	2h	WCI 2	Droughtiness	le
31 47500 14000 447800 214000 bb	2/	INE	30	43	13	7.31N4/4			No	MS - Med 30	GH - GI	avel with non-porous (nard) ston avel with non-porous (hard) ston	es	Moderat	e VC - V	er No	No -4 No	42	30	**C1 Z	Drougnaness	ľ
			43	120	77					MS - Med 80	GH - Gr	avel with non-porous (hard) ston	es	Moderat	e		No					
SP 47900 14000 447900 214000 66	≤7	NE	0	25	25	10YR3/2			No	MSL - Me8 4 0	GH C	avel with non-porous (hard) ston	oc .	Not Appl	ic NON	. NNo	1	0 .0	22	WCI 1	Droughtiness	la
31 47300 14000 447300 214000 bb	2/	INE	25			10YR3/2 10YR4/3				SCL - San 10		avei with non-porous (nard) ston avel with non-porous (hard) ston		Moderat			-1	8- ن	bc	***************************************	Drougnaness	÷
			45	65	20	10YR4/4			No	SCL - San 12	GH - Gr	avel with non-porous (hard) ston	es	Moderat	e NON	NNo						
			65	120	55	10YE5/3			No	MS - Med 80	GH - Gi	avel with non-porous (hard) ston	es	Poor	MC -	MeNo						
CD 40000 14000 440000 214022 CF	-7	NE		40	40	10YR4/4				CCI C 2	GU G	Land with any array (by 10 c		NI=4 A	i-No:	NAI-	N- ^	0 10	2-	WCI 1	Describioses	
SP 48000 14000 448000 214000 65	≤7	INE	40	40 45	40 5	10YR4/4 7.5YR4/4				SCL - San 3 SCL - San 10		avel with non-porous (hard) ston avel with non-porous (hard) ston	es es	Not Appl Moderat	e NON	· NNo	No -2 No	υ -18	33	WCI 1	Droughtiness	ľ
			45	50	5	7.5YR4/4			No	SCL - San 50	GH - Gi	avel with non-porous (hard) ston	es	Moderat	e NON	- NNo	No					
						7.5YR4/4				MS - Med 50 MS - Med 80		avel with non-porous (hard) ston avel with non-porous (hard) ston		Moderat Moderat		NNo	No No					
			,,,	120	30					INIS - INIECOO	GII-GI	aver with non-porous (nard) ston	-	wioderac			140					
SP 48100 14000 448100 214000 65	≤7	NE	0 40			10YR4/4 10YR4/6				SCL - San 3 C - Clay 10		avel with non-porous (hard) ston avel with non-porous (hard) ston		Not Appl Moderat			No -1	8 -18	3a	WCI 1	Droughtiness	
				120		201114/0			140	C - Clay 80		avel with non-porous (hard) ston		Poor								
														<u> </u>	1							
SP 48200 14000 448200 214000 63	≤7	NE	0 27			10YR4/2 2.5Y6/1	CP - Cc 10YR5/6			MCL - Cla 0 C - Clay 0	HR - All	hard rocks or stones (i.e. those whard rocks or stones (i.e. those w	hich cannot be scratched wi	th a finge		Non-ca NYes		2	2	WC IV 3b	Wetness	
			21	120	23	2.310/1	C C(101N3/0		162	C ciay 0	nn - All	or occas or scories (i.e. tilose v	camiot de scratched Wi	. 001	NON		163					
			-			40004/-				140, 010												
SP 48300 14000 448300 214000 63	≤7	NE	0 24			10YR4/3 2.5Y5/2	CP - Cc 10YR5/6			MCL - Cla 0 C - Clay 0		hard rocks or stones (i.e. those whard rocks or stones (i.e. those w				- Non-ca - NNo		-1	2	wcıv 3b	Wetness	
						2.5Y6/1	CP - Cc 10YR5/6			HCL - Clar 0		hard rocks or stones (i.e. those v				- NNo	Yes					
D 47700 40000 447				0	25	10/02/:			<u>. </u>	145: 14 0												
SP 47700 13900 447700 213900 68	≤7	NE	0 30	30 40		10YR3/4 10YR4/4				MSL - Me 2 SCL - San 5		avel with non-porous (hard) ston avel with non-porous (hard) ston		Not Appl Moderat			No -9	-11	3a	WCI 1	Droughtiness	
			40	60	20	10YR4/4 10YR3/3			No	SCL - San 30	GH - Gr	avel with non-porous (hard) ston	es	Moderat	e NON		No					
			60	120	60					SCL - San 80	GH - Gr	avel with non-porous (hard) ston	es	Moderat	e		No					
SP 47800 13900 447800 213900 66	≤7	NE	0 30	30 120		7.5YR3/3				CSL - Coa 5 CSL - Coa 80		avel with non-porous (hard) ston avel with non-porous (hard) ston	es	Not Appl Moderat		'erNo	No -3	0 -34	3b	WCI 1	Droughtiness	
			30	120	50					CSE - COd OU	GH - GI	aver with non-porous (nard) ston	E3	woderat			NO					

Grid ref. Alt (m)) Slope ° Aspect L	Land use Depth (cm) Matrix	Ochreous Mottles	Grey Mottles Gley Texture	Stones - type 1	Stones - type 2	Ped	SUBS STR Ca	°aCO3 M		Drought	Wet	Final ALC	
R X Y	Slope , Specia	Top Bttm Thick Munsell co	colour Form Munsell colour Form	orm Munsell colour 9	o > 2cm > 6cm Type	% > 2cm > 6cm Type St	strength Size Shape	30033	accs	MB	w MBp Gd	WC Gw	Limitation 1 Limitation 2 Limitation 3	Grade
SP 47900 13900 447900 213900 66	≤7 NE	0 35 35 10YR3/4		No MSL - Me 1	1 GH - G	ravel with non-porous (hard) stones	00	Not Applic SC	C - Slig Nr	2 No -16	-19 3a	M/C I 1	Droughtiness	22
25,41300 13300 ##1300 513300 00	S/ NE	0 35 35 10YK3/4 35 43 8 10YK4/4		No SCL - San 5		ravel with non-porous (hard) stones ravel with non-porous (hard) stones		Moderate VO			-15 30	MCI I	Drougnuness	3a
				NO SCL - San S SCL - San 80					C - Venivo) INO				
		43 120 77		SLL - Jan o	J un-uie	ravel with non-porous (hard) stones	· I'	Moderate		NO				
							1							
			I			1	1							
			1				1							
SP 48100 13900 448100 213900 65	≤7 NE	0 26 26 10YR4/3		MCL - Cla 0	2 HD A	11 1	'' 't be coretched u	·· b - finger d	- ON Non		^ 1	14/C B4 2h	Wetness	2h
SP 48100 13900 448100 215500 05	≤7 INE	0 26 26 10YR4/3 26 54 28 2.5Y5/2		Yes C - Clay 0		Il hard rocks or stones (i.e. those which Il hard rocks or stones (i.e. those which			NON - Non NON - NNo		U 2	WC IV 30	Wetness	30
		26 54 28 2.5Y5/2 54 120 66 2.5Y6/1		Yes C - Clay 0 Yes HCL - Cla 0		ll hard rocks or stones (i.e. those whi Il hard rocks or stones (i.e. those whi			NON - NNO NON - NNo					
		54 120 00 2.510/1	CP - CC 10YK5/0	res Incl - clau	TK - All /	hard rocks or stones (i.e. triose with	ich cannot be scratched wijr	Poor	ION - NINO) Yes				
						1	1							
			1				1							
							Ţ							
5 SP 47500 13800 447500 213800 67	≤7 NE	0 30 30 10YR4/2		MCL - ClaO	n HR - A ^r	Il hard rocks or stones (i.e. those which	hich cannot be scratched w	with a finger IN	NON - Non	n-calcarec20	4 2	WC IV 3b	Wetness	3h
Jr 47500 25000	3/	30 120 90 2.5Y6/1		Yes C - Clay 0		Il hard rocks or stones (i.e. those whi			NON - NYes			***************************************	Wethess	35
		30 110 11 1111,	C. C. 2011, 2	[[[-	****	iald roots of stories (cii caoc oc	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10	3				
			1			1	1							
			1				1							
						1	1							
							1							
6 SP 47600 13800 447600 213800 67	≤7 NE	0 24 24 7.5YR4/4		No MSL - Me 4		ravel with non-porous (hard) stones	.s	Not Applic No	NON - NNc	o No -46	-37 3b	WCI 1	Droughtiness	3b
		24 32 8 7.5YR4/3	,	No MSL - Me 8		ravel with non-porous (hard) stones		Moderate No	ION - NNc	o No				
		32 54 22 7.5YR5/3	,	No MS - Med 20		ravel with non-porous (hard) stones	es n	Moderate No	NON - Non-	n-cal No				
		54 74 20 7.5YR5/3		No MS - Med 80		ravel with non-porous (hard) stones		Moderate NO						
							1							
							1							
							1							
7 SP 47700 13800 447700 213800 68	≤7 NE	0 32 32 7.5YR4/4		No MSL - Me 4		ravel with non-porous (hard) stones		Not Applic NO			-35 3b	WCI 1	Droughtiness	3b
		32 54 22 7.5YR5/3		No MS - Med 20		ravel with non-porous (hard) stones		Moderate No						
		54 74 20 7.5YR5/3		No MS - Med 80	30 GH - Gr	ravel with non-porous (hard) stones	.s I'	Moderate No	ION - Non	ı-cal No				
						1	1							
			1				1							
			1				1							
						1						+		
8 SP 47800 13800 447800 213800 68	≤7 NE	0 28 28 7.5YR4/4		No MSL - Me 6		ravel with non-porous (hard) stones		Not Applic NO			1 2	WCI 1	Droughtiness	2
		28 68 40 7.5YR4/3		No MSL - Me 8		ravel with non-porous (hard) stones		Moderate NO						
		68 120 52 7.5YR5/3	1	No SCL - San 20	J 6H - 618	ravel with non-porous (hard) stones	· I'	Moderate NO	10N - NOti-	ı-cal No				
			1				1							
			1				1							
						1	1							
9 SP 47900 13800 447900 213800 68	≤7 NE	0 30 30 7.5YR4/4	4	No MSL - Me 4	4 2 2 GH - Gra	ravel with non-porous (hard) stones		Not Applic F	NON - NNC	o No 30	2 2	WCI 1	Droughtiness	-
37 47300 13600 447300 213600 55	5/ NL	30 70 40 7.5YR4/3		No MSL-Me8		ravel with non-porous (hard) stones		Moderate NO			3 4	WC1 1	Drougnuness	2
		70 120 50 7.5YR5/3		No SCL - San 20		ravel with non-porous (hard) stones		Moderate NO						
		/0 120 30 /.311.3/3	1	NO SCE - SSINE	J 011 010	.ver with non-porous (nara) stones	ľ	Moderate	10IN - INO	-Canvo				
			1				1							
							1							
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END		· 	-			+	+	+ +	-	-		+	-	
		1	i i	1 1 1		- T		1 1	1			l .		1

NGR X Y	Alt (m) Slope	 Aspect Land use 			Matrix Munsell colour	Ochreous Mottles Form Munsell colour	Grey Mottles Form Munsell colour	Gley	Texture % > 2cm	es - type 1 > 6cm Type	Stones - type 2 Stones - type 2 Stones - type 2	Ped SUBS STE	R CaCO3 M	n C SPL	Drough Bw MBp		Final ALC Limitation 1 Limitation 2 Limitat	ion 3 Grade
SP 47200 13700 447200 213700	67 ≤7	N/A	0 30		10YR4/2	. orm producen colour	. S. III INIGIISEII COIOUI		MCL - Cla 0	HR - All h	ard rocks or stones (i.e. thos	se which cannot be scratched with a fing	er NON - Nor	-calcarer 2	S INIDP	2 WCIV 3b	Wetness	2h
3F 47200 13700 447200 213700	0/ 5/	N/A	30 120			CP - Cc 10YR5/6			C - Clay 0	IIIV - AII II	ard rocks or stories (i.e. thos	se which cannot be scratched w Poor	NON - NYe	-caicaletz.	. 3	2 WCIV 30	wettiess	30
			30 120	30	2.510/1	Cr - Ct 101113/0		163	C - Clay	III - All I	ard rocks or stories (i.e. thos	which calmot be scratched wir our	NON-IN	3 1163				
													\perp					
SP 47300 13700 447300 213700	67 ≤7	N/A	0 35	35	10YR3/4			No	MSL - Me 1	GH - Grav	el with non-porous (hard) st	tones Not App	lic SC - Slig No	No -1	5 -18	3a WCI 1	Droughtiness	3a
			35 43		10YR4/4				SCL - San 5		vel with non-porous (hard) st		e VC - VerN	No				
			43 120	77					SCL - San 80	GH - Grav	el with non-porous (hard) st	tones Moderat	:e	No				
SP 47400 13700 447400 213700	67 <7	N/A	0 40	40	10YR4/4			No	SCL - San 3	GH - Grav	vel with non-porous (hard) st	tones Not Appl	lic NON - NN	No -1	9 -16	3a WCI 1	Droughtiness	3a
			40 45	5	7.5YR4/4			No	SCL - San 10	GH - Grav	el with non-porous (hard) st		e NON - NN					
			45 50		7.5YR4/4			No	SCL - San 50		el with non-porous (hard) st		e NON - NN					
					7.5YR4/4				MS - Med 50		el with non-porous (hard) st		e NON - NN					
			70 120	50					MS - Med 80	GH - Grav	el with non-porous (hard) st	tones Moderat	:e	No				
CD 47500 40705	ca -				401047			1			1 11 0 "							
SP 47500 13700 447500 213700	67 ≤7	N/A	0 40	40	10YR4/4				SCL - San 3		vel with non-porous (hard) st				/ -17	3a WCI 1	Droughtiness	3a
			40 45 45 120		10YR4/6				C - Clay 10		el with non-porous (hard) st		e VC - VerN	No				
			45 120	/5					C - Clay 80	GH - Grav	vel with non-porous (hard) st	POOR						
SP 47600 13700 447600 213700	67 ≤7	N/A	0 30	30	10YR3/3			No	SCL - San 1	GH - Grav	el with non-porous (hard) st	tones Not App	lic NON - NN	No -1	9 -17	3a WCI 1	Droughtiness	3a
			30 50	20	10YR4/6			No	SCL - San 5	GH - Grav	el with non-porous (hard) st	tones Moderat	e NON - NN				-	
			50 120	70					MS - Med 80		el with non-porous (hard) st			No				
SP 47700 13700 447700 213700	68 ≤7	N/A	0 28	20	10YR3/4		-	Ne	MSL - Me 3	CU C	ol with non-ner/ " :	tonor N	lic NON A.	N- 2		3a WCI 1	Draughtinger	2-
or 4//00 13/00 44//00 213700	uo <u>\$</u> /	N/A			10YR3/4 10YR4/4				MSL - Me3 SCL - San 6		el with non-porous (hard) st el with non-porous (hard) st		ic NON - NNo		-11	od WCI 1	Droughtiness	3a
			40 60		10YR3/3				SCL - San 30		el with non-porous (hard) st		e NON - NN					
			60 120		105/5				SCL - San 80		el with non-porous (hard) st			No.				
									- -		,			1				
SP 47800 13700 447800 213700	68 ≤7	N/A	0 35		10YR3/4				MSL - Me 1		vel with non-porous (hard) st	tones Not App	lic SC - Slig No	No -1	5 -18	3a WCI 1	Droughtiness	3a
					10YR4/4				SCL - San 5		el with non-porous (hard) st		e VC - VerN					
			43 120	77					SCL - San 80	GH - Grav	el with non-porous (hard) st	tones Moderat	:e	No				
SP 47900 13700 447900 213700	68 ≤7	N/A	0 32	32	7.5YR4/4			No	MSL - Me 6 2	2 GH - Grav	vel with non-porous (hard) st	tones Not App	lic NON - NN	No 29	3	2 WCI 1	Droughtiness	2
					7.5YR4/3				MSL - Me 8		el with non-porous (hard) st		e NON - NN		-			Ī
					7.5YR5/3				SCL - San 20		el with non-porous (hard) st	tones Moderat	e NON - Nor					
					•													
								1									-	
SP 47200 13600 447200 213600	67 ≤7	N/A	0 30		10YR3/4				MSL - Me 3		vel with non-porous (hard) st		lic SC - Slig No		8 -21	3a WCI 1	Droughtiness	3a
			30 42	12	10YR4/4			No	SCL - San 5		el with non-porous (hard) st		e VC - VerNo					
			42 120	/8					SCL - San 80	GH - Grav	el with non-porous (hard) st	tones Moderat	e	No				
SP 47300 13600 447300 213600	67 ≤7	N/A	0 30		7.5YR4/4					2 GH - Grav	el with non-porous (hard) st	tones Not App	lic NON - NN	No 29	3	2 WCI 1	Droughtiness	2
			30 68	38	7.5YR4/3			No	MSL - Me8	GH - Grav	el with non-porous (hard) st	tones Moderat	e NON - NN	No			-	
			68 120	52	7.5YR5/3			No	SCL - San 20	GH - Grav	el with non-porous (hard) st	tones Moderat	e NON - Nor	-calNo				
SP 47400 13600 447400 213600	67 <7	N/A	0 30	30	7.5YR4/4		-	No	MSL - Me 5 2	2 GH - Grav	vel with non-porous (hard) st	tones Not Appl	lic NON - NNA	No 2	7 1	2 WCI 1	Droughtiness	2
7,-00 25000 447400 215000	/	,			7.5YR4/4 7.5YR4/3				MSL - Me 10		el with non-porous (hard) st		e NON - NN		-	-	ugnaness	ľ
					7.5YR5/3			No	SCL - San 20		el with non-porous (hard) st		e NON - Nor					
			120	50	,5					3 318	5,000 (1,070) 30	oderac						
SP 47500 13600 447500 213600																		
SP 47500 13600 447500 213600	67 ≤7	N/A	0 32		10YR3/4				MSL - Me 2		el with non-porous (hard) st		lic NON - NN		-8	3a WCI 1	Droughtiness	3a
			32 45						SCL - San 6		vel with non-porous (hard) st		e NON - NN					
			45 60	15	10YR3/3			No	SCL - San 30	GH - Grav	vel with non-porous (hard) st	tones Moderat	e NON - NN	No				
			60 120	60					SCL - San 80	GH - Grav	vel with non-porous (hard) st	tones Moderat	e	No				
												1	1 1	- 11		1	i i	
																		Ш

ŀ	Grid ref.	Alt (m) S	lope °	Aspect Land us		pth (cm)			Ochreous			Mottles	Gley 1	exture		nes - type 1		Stones		Pe		SUBS STR	CaCO3	Mn C SF	Drou		Wet		Final ALC	2 0 1
1	NGR X Y	1			Тор	Bttm Th	ick Mun	seii colour	Form Muns	eii colour	Form Mur	iseil colour			% > 2cm	> 6cm	ype %	> 2cm >	ьст Туре	Strength Si	ize Shape				MBw M	Rb Gq	WC Gw	Limitation 1	imitation 2 Limitatio	on 3 Grade
9	SP 47600 13600 447600 2136	00 67 ≤	7	N/A	0 :	35 35	10YR	4/4					No S	SCL - Sa	n 4	(GH - Grave	l with non-po	rous (hard) stor	nes		Not Applic	MC - Md	No No	o -18 -1	8 3a \	WCI 1	Droughtiness		3a
					35 4	45 10	10YR	4/6					No 0	C - Clay	10		GH - Grave	l with non-po	rous (hard) stor	nes		Moderate	VC - Verl	No No	5					
					45	120 75								C - Clay					rous (hard) stor			Poor								
						110 /3							ľ	City	00			with hon pe	ious (nara) stor											
	SP 47700 13600 447700 21360	00.68	-7	NI/A	0 -	28 28	1000	2/2					No S	CI 52	n 2	,	CH Crown	l with non no	rous (hard) stor	0.5		Not Applic	NON N	No No	o -22 -2	1 26 1	NCI 1	Droughtiness		3h
	37 47700 13000 447700 2130	00 00 3	,	14/15		48 20								SCL - Sa					rous (hard) stor			Moderate				1 30	WC1 I	Diougnitiness		30
						48 20 120 72		4,0						MS - Me					rous (nard) stor rous (hard) stor			Moderate		NO N						
					48 .	120 /2								VIS - IVIE	2080	,	an - Grave	ei with non-po	rous (nard) stor	ies		woderate		IN	,					
9	SP 47200 13500 447200 21350	00 66 ≤	7	N/A		34 34	10YR	3/4						MSL - M		(GH - Grave	l with non-po	rous (hard) stor	nes					o -17 -2	1 3a \	WCI 1	Droughtiness		3a
						42 8	10YR	4/4						SCL - Sa		(GH - Grave	l with non-po	rous (hard) stor	nes		Moderate	VC - Veri	No No)					
					42	120 78							9	SCL - Sa	n 80	(GH - Grave	l with non-po	rous (hard) stor	nes		Moderate		N)					
9	SP 47300 13500 447300 21350	00 66 ≤	7	N/A	0 :	24 24	7.5Y	R4/4					No I	MSL - M	1e4 2	2 (GH - Grave	l with non-po	rous (hard) stor	nes		Not Applic	NON - NO	No No	-45 -3	6 3b \	WCI 1	Droughtiness		3b
					24	32 8	7.5YI	84/3					No I	MSL - M	1e 8	(GH - Grave	l with non-po	rous (hard) stor	nes		Moderate	NON - N	No No)					
					32	54 22	7.5YI	15/3					No I	MS - Me	ec 20				rous (hard) stor			Moderate								
					54	74 20	7.5YI	R5/3					No I	MS - Me	ec 80				rous (hard) stor			Moderate	NON - No	on-cal N	0					
5	SP 47400 13500 447400 21350	00 69 ≤	7	N/A		28 28								MSL - M MSL - M	162 1				rous (hard) stor			Not Applic	NON - N	No No	31 5	2 \	WCI 1	Droughtiness		2
							7.5YI												rous (hard) stor			Moderate								
					68	120 52	7.5YI	15/3					No S	SCL - Sa	n/20	(3H - Grave	el with non-po	rous (hard) stor	nes		Moderate	NON - No	on-cal N	0					
	SP 47500 13500 447500 2135	00 68 <	7	N/A	0 :	29 29	10YR	3/3					No S	SCL - Sa	n 1	(GH - Grave	el with non-no	rous (hard) stor	nes		Not Applic	NON - NO	No No	o -18 -1	6 3a N	WCI 1	Droughtiness		3a
•				•		51 22								CL - Sa					rous (hard) stor			Moderate								
						120 69		., -						MS - Me					rous (hard) stor			Moderate		N						
					J1 .	120 03								VIS - IVIE	5400	,	Jii - Glave	: with non-pe	rous (naru) stor	ic3		wouldte		100	,					
- 5	SP 47600 13500 447600 21350	00 68 ≤	7	N/A	0 :	29 29	7.5Y	R4/3					No I	MSL - N	1e6 2	0 (GH - Grave	el with non-po	rous (hard) stor	nes		Not Applic	: NON - N	No No	o -4 -6	3a \	WCI 1	Droughtiness		3a
					29		7.5YI							MSL - M					rous (hard) stor			Moderate								
						94 40								MSL - N					rous (hard) stor			Moderate								
	END																													

oint	NGR	Grid	/	v	Alt (n) Slope	e ° As	ect Land	use	nep	th (cm)	ick M	Muncell colour	Ochreous Mottl	les Grey Mottles our Form Munsell co		ey Textur	re 🐰	Stones - type 1 > 2cm > 6cm Type	96 ~	Stones - type 2	Stre	rength Size Shape SUBS STR	CaCC	03 Mn (C SPL	Bu MP	Gd	wc lo		Fina imitation 1 Limitation 2		Grade
		13900	148200	212000	1 65	≤7	N/		10	μ B n	ttm Th	ICK IV	nyra/2	rorm įviunseii cole	our Form Munsell co	nour	MCL -		ZCITI > DCM Type	70 > . hard rec	ks or stones (i.e. those	Stre	rength Size Shape ch cannot be scratched with a finger	NON	- Non-c	alcare/10	DW INIB	2	WC IV 3	h Li	mitation 1 Limitation 2	Limitation 3	Grade
	31 40200	, 13300	***0200	213300	<i>3</i> 03	3,	14/		28		20 92			CP - Cc 10YR5/6		Ye	c - Cla		HR - All	hard roo	iks or stones (i.e. those	which	ch cannot be scratched wil Poor		- NYes		, ,	_	welv 3		vectiess		30
	SP 48300	13900	148300	213900	0 63	≤7	N/	A	0				0YR4/3				MCL -	Cla 0					ch cannot be scratched with a finger				0	2	WCIV 3	b W	Vetness		3b
											7 32 20 63			CP - Cc 10YR5/6 CP - Cc 10YR5/6			es C - Cla es HCL - 0						ch cannot be scratched wi Poor ch cannot be scratched wi Poor		- NNo - NNo								
	SP 48400	13900	148400	213900	0 64	≤7	N/	Α		5	2 22 4 32 20 66	2.	.5Y5/2	CP - Cc 10YR5/6 CP - Cc 10YR5/6		Ye Ye	MCL - es C - Cla	y 0	HR - All	l hard roo	ks or stones (i.e. those	which	ch cannot be scratched with a finger ch cannot be scratched wil Poor ch cannot be scratched wil Poor	NON	- Non-c - NNo - NNo	Yes	-2	2	WCIV 3	b W	/etness		3b
	SP 48000	0 13800	148000	213800	0 69	≤7	N/	Α.	0 27	7	0 43	7.	.5YR4/4 .5YR4/3			N	o MSL -	Me8	GH - Gr	ravel with	n non-porous (hard) sto	ones	Not Appli Moderate	NON	- NNo	No	1 2	2	WCI 1	. D	roughtiness		2
									70	1	20 50	7.	.5YR5/3			N	o SCL - S	San 20	GH - Gr	ravel with	n non-porous (hard) sto	ones	Moderate	NON	- Non-c	al No							
_	SP 48100	0 13800	148100	213800	0 66	≤7	N/	A		4	7 37 5 8 20 75	10					D SCL - S D C - Cla C - Cla	y 10	GH - Gr	ravel with	n non-porous (hard) sto n non-porous (hard) sto n non-porous (hard) sto	ones	Not Appli Moderate Poor			No -1 No	9 -19	3a	WCI 1	. D	roughtiness		3a
	SP 48200	0 13800	148200	213800	0 66	≤7	N/	Α	50	5	6 8	7. 7.) 7.	0YR4/4 .5YR4/4 .5YR4/4 .5YR4/4			N	D SCL - S D SCL - S D SCL - S D MS - N MS - N	San 10 San 50 Mec 50	GH - Gr GH - Gr GH - Gr	ravel with ravel with ravel with	n non-porous (hard) sto n non-porous (hard) sto n non-porous (hard) sto n non-porous (hard) sto n non-porous (hard) sto	ones ones ones	Not Appli Moderat Moderat Moderate	NON NON NON	- NNo - NNo	No -2 No No No No	0 -18	3a	WCI 1	. D	roughtiness		3a
	SP 48300	0 13800	148300	213800	0 65	≤7	N/	A	0 29 55	5	9 29 5 26 20 65	2.	.5Y5/2	CP - Cc 10YR5/6 CP - Cc 10YR5/6			MCL - es C - Cla es HCL - 0	y 0	HR - All	I hard roo	ks or stones (i.e. those	which	ch cannot be scratched with a finger ch cannot be scratched wi Poor ch cannot be scratched wi Poor	NON	- Non-c - NNo - NNo	Yes	1 2	2	WC IV 3	b W	/etness		3b
	SP 48400	0 13800	148400	213800	0 64	≤7	N/	A	0 32		2 32 20 88			CP - Cc 10YR5/6		Ye	MCL - C - Cla						ch cannot be scratched with a finger ch cannot be scratched wi		- Non-c - NYes		. 5	2	WC IV 3	b W	Vetness		3b
	SP 48000	13700	148000	213700	0 69	≤7	N/	A		. 7	0 39	7.	.5YR4/4 .5YR4/3 .5YR5/3				o MSL - o MSL - o SCL - S	Me6	GH - Gr	ravel with	n non-porous (hard) sto n non-porous (hard) sto n non-porous (hard) sto	ones	Not Appli Moderate Moderate	NON	- NNo	No	. 5	2	WCI 1	. D	roughtiness		2
	SP 48100	13700 -	148100	213700	0 66	≤7	N/	4	40	7	0 5 0 30	10	.5YR5/6				0 MSL - 0 SCL - S SCL - S	San 5 San 5	GH - Gr GH - Gr	ravel with	n non-porous (hard) sto n non-porous (hard) sto n non-porous (hard) sto	ones ones	Moderate Moderate	NON NON	- NNo - NNo	No No	7	3a	WCI 1	. D	roughtiness		За
	SP 48204	13700	148200	21370	0.66	<7	N/	Δ	70		7 37		.5YR4/4			N.	MS - N				n non-porous (hard) sto		Moderate Not Appli	NON	- NNo		-14	3a	WCI 1	0	roughtiness		32
	5. 40200	, 13,00	0200	213/00	. 00	21	14/		45	4	5 8 20 75	10	0YR4/6 .5YR4/4			N	C - Cla C - Cla MS - N	y 10 y 80	GH - Gr GH - Gr	ravel with ravel with	n non-porous (hard) sto n non-porous (hard) sto n non-porous (hard) sto	ones ones	Moderate Poor Moderate	VC -	VerNo	No	-14	30	1		roognitii (E33		30
	SP 48300	0 13700 4	148300	213700	0 65	≤7	N/	A	0 25 45	4	5 25 5 20 5 20) 10	0YR4/3			N	0 MSL - 0 SCL - S 0 SCL - S	San 10 San 12	GH - Gr	ravel with	n non-porous (hard) sto n non-porous (hard) sto n non-porous (hard) sto	ones	Not Appli Moderate Moderate	NON	- NNo	No	8 -8	3a	WCI 1	D	roughtiness		3a

NGR X Y	m) Slope	l'aspi	ect Land u	Тор	Bttm	Thick	Munsell co	olour F	orm Mun	sell colour	Form Mu	nsell colour	Gley	Texture	6 > 2cm	es - type 1 > 6cm T	ype %	> 2cm	> 6cm	Гуре	Strength	Size Sha	pe SUBS ST		-	ME	Bw MBp	p Gd	WC G	w Li	imitation 1 Limit	ation 2 Limitation	3 Grade
SP 48400 13700 448400 213700 64	≤7	N/A		27	48	21	10YR4/2 2.5Y5/2 2.5Y6/1		CP - Cc 10YR				Yes	MCL - Cla C - Clay HCL - Cla)	Н	IR - All ha	rd rocks or	r stones (i.e.	those wh	ich cannot	be scratcher be scratcher be scratcher	d with a finge d wi Poor d wi Poor	NON	- Non-ca - NNo - NNo	Yes	-1	2	WCIV 3I	b V	Vetness		3b
SP 48100 13600 448100 213600 66	≤7	N/A		35	45	10	10YR4/2 10YR4/6						No	SCL - San C - Clay	10	G	GH - Grave	el with non	n-porous (ha	rd) stone:	5		Modera			No -20	-20	3а	WCI 1	D	Proughtiness		3a
				45	120	75								C - Clay	30	G	GH - Grave	el with non	n-porous (ha	rd) stone:	5		Poor										
SP 48200 13600 448200 213600 66	≤7	N/A			50	24	10YR3/2 10YR4/3						No	MSL - Me SCL - San	10	G	GH - Grave	el with non	n-porous (ha	rd) stone:	5		Not App Modera	te NON	- NNo	No -14 No	l -2	За	WCI 1	D	Proughtiness		3a
							10YR4/4 10YE5/3							SCL - San MS - Med					n-porous (ha n-porous (ha				Moderat Poor			No No							
SP 48300 13600 448300 213600 65	≤7	N/A			68	43	7.5YR4/4 7.5YR4/3						No	MSL - Me	3	G	GH - Grave	el with non	n-porous (ha	rd) stone:	5		Moderat	te NON	- NNo	No	2	2	WCI 1	D	Proughtiness		2
				68	120	52	7.5YR5/3						No :	SCL - San	20	G	GH - Grave	el with non	n-porous (ha	rd) stone:	5		Modera	te NON	- Non-ca	No							
SP 48420 13600 448420 213600 64	≤7	N/A		38	46	8	10YR4/4 7.5YR4/4						No	SCL - San : SCL - San :	10	G	GH - Grave	el with non	n-porous (ha n-porous (ha	rd) stone:	5		Moderat	te NON	- NNo	No -20	-18	3a	WCI 1	D	roughtiness		3a
				50	50 70 120	20	7.5YR4/4 7.5YR4/4						No	SCL - San MS - Med MS - Med	50	Ğ	GH - Grave	el with non	n-porous (ha n-porous (ha n-porous (ha	rd) stone:	5		Modera Modera Modera	te NON		No No No							
SP 48100 13500 448100 213500 68	≤7	N/A			30 120		7.5YR3/3							CSL - Coal					n-porous (ha n-porous (ha				Not App Moderat		/erNo	No -30 No	-34	3b	WCI 1	D	Proughtiness		3b
SP 48200 13500 448200 213500 68	≤7	N/A			46	8	10YR4/4 7.5YR4/4						No	SCL - San	10	G	GH - Grave	el with non	n-porous (ha n-porous (ha	rd) stone:	5		Moderat	te NON	- NNo	No -20	-18	За	WCI 1	D	Proughtiness		3a
				50	70 120	20	7.5YR4/4 7.5YR4/4						No	SCL - San : MS - Med MS - Med	50	G	GH - Grave	el with non	n-porous (ha n-porous (ha n-porous (ha	rd) stone:	5		Modera Modera Modera	te NON		No No							
SP 48300 13500 448300 213500 66	≤7	N/A		29	54	25	7.5YR4/3 7.5YR4/4 7.5YR5/4						No	MSL - Me MSL - Me MSL - Me	3	G	GH - Grave	el with non	n-porous (ha n-porous (ha n-porous (ha	rd) stone:	5		Not App Modera Modera	te NON	- NNo	No -1 No No	-7	3a	WCI 1	D	Proughtiness		3a
SP 48400 13500 448400 213500 64	≤7	N/A			34 42		10YR3/4 10YR4/4							MSL - Me SCL - San					n-porous (ha				Not App Modera	lic SC - S		No -18	3 -22	3a	WCI 1	D	Proughtiness		3a
					120		10184/4						NO :	SCL - San	80				n-porous (ha				Modera		renno	No							
SP 48300 13400 448300 213400 66	≤7	N/A		0 36	48	12	10YR3/4 10YR4/4						No	MSL - Me SCL - San	3	G	GH - Grave	el with non	n-porous (ha	rd) stone:	5		Not App Modera			No -13	3 -16	3a	WCI 1	D	Proughtiness		3a
				48	120	72								SCL - San	80	G	GH - Grave	el with non	n-porous (ha	rd) stone:	5		Modera			No							
SP 48400 13400 448400 213400 64	≤7	N/A			43	7	10YR3/4 10YR4/4						No	MSL - Me SCL - San	5	G	GH - Grave	el with non	n-porous (ha	rd) stone:	5		Not App Modera	te VC - V	lig No /erNo	No -15	i -19	3a	WCI 1	D	Proughtiness		3a
				43	120	77								SCL - San	30	G	GH - Grave	el with non	n-porous (ha	rd) stone:	5		Modera	te		No							
SP 48300 13300 448300 213300 66	≤7	N/A			63	32	7.5YR4/3 7.5YR4/3						No	MSL - Me	5	G	GH - Grave	el with non	n-porous (ha	rd) stone:	5		Modera	te NON	- NNo	No	3	2	WCI 1	D	Proughtiness		2
				63	120	57	7.5YR5/3						No	SCL - San	20	G	iH - Grave	el with non	n-porous (ha	rd) stone:	5		Modera	te NON	- Non-ca	No							

F	oint NGR	Grid ref.	Alt	(m) Slope	° Aspect	Land use	De Top	epth (cm Bttm 1	n) Thick	Matrix Munsell colour	Ochreous Mottles Form Munsell colour	Grey Mottles Form Munsell colour	Gley	Texture	% >	Stones - 2cm > 6		%	Stones - type 2 > 2cm > 6cm Type Street	Ped ength Size Shape	SUBS STR	CaCO3	Mn C S	PL MBw	Drought MBp Go	l WC	Wet	Final ALC Limitation 1 Limitation 2 Limitation 3	Grade
6	3 SP 484	00 13300 448400	213300 63	≤7	N/A		29	29 2 70 4 120 5	41	7.5YR4/3 7.5YR4/3 7.5YR5/3			No	MSL - M MSL - M SCL - Sai	€8	2	GH - 0	Gravel	I with non-porous (hard) stones I with non-porous (hard) stones I with non-porous (hard) stones		Not Appli Moderate Moderate	NON -	No N		2 2	WCI	1	Droughtiness	2
Ţ	END																												

Cald and	_		Donth (om)	Ochreous Mottles	Grey Mottles	_	1	Stones - typ	001	Stones - typ		Dod		-	- 1		Drought	Mot		inal ALC
Point Grid ref. NGR X Y Alt (m	n) Slope °	Aspect Land use To	p Bttm Ti) Matrix hick Munsell colou	r Form Munsell colour	Form Munsell colour	Gley	Texture	% > 2cm > 6cn	n Type %	> 2cm > 6cm	Type	Ped Strength Size	Shape	JBS STR C	aCO3 Mi	n C SPL MI	Drought Bw MBp Gd	WC Gw		on 2 Limitation 3 Grade Profile notes
64 SP 47330 13400 447330 213400 66	≤7	S				The state of the s														N/A	Allotment Allotment
S SP 47400 13400 447400 213400 69	≤7	32	54 2	2 7.5YR4/3 2 7.5YR4/4 6 7.5YR5/4			No	MSL - Me MSL - Me MSL - Me	8	GH - Gravel	with non-porous with non-porous with non-porous	(hard) ston	es	M	ot Applic N loderate N loderate N	ON - NNo	No No	-11 3a	WCI 1	Droughtiness	3a
6 SP 47500 13400 447500 213400 68	≤7	S																		N/A	Off site Off site
7 SP 47620 13400 447620 213400 68	≤7	38	38 38 45 7 120 7	8 10YR4/3 10YR4/6 5			No	SCL - San C - Clay C - Clay	10	GH - Gravel	with non-porous with non-porous with non-porous	(hard) ston	es	М	ot Applic M loderate V	1C - McNo C - Ver No	No -18	3 -17 3a	WCI 1	Droughtiness	3a
SP 47700 13400 447700 213400 68	≤7	30	54 2	0 7.5YR4/3 4 7.5YR4/4 6 7.5YR5/4			No	MSL - Me MSL - Me MSL - Me	8	GH - Gravel	with non-porous with non-porous with non-porous	(hard) ston	es	No M M	ot Applic N loderate N loderate N	ON - N No ON - N No ON - N No	No -2 No No	-10 3a	WCI 1	Droughtiness	3a
9 SP 47900 13400 447900 213400 71	≤7	25	25 2: 48 2: 120 7:	5 10YR3/4 3 10YR4/4 2			No	MSL - Me SCL - San SCL - San	8	GH - Gravel	with non-porous with non-porous with non-porous	(hard) ston	es	M	ot Applic So loderate V loderate	C - Slig No C - Ver No	No -16 No No	5 -18 3a	WCI 1	Droughtiness	3a
9 SP 48000 13400 448000 213400 69	≤7	35	35 3: 45 1: 120 7:	5 10YR4/3 0 10YR4/6 5			No No	SCL - San C - Clay C - Clay	10	GH - Gravel	with non-porous with non-porous with non-porous	(hard) ston	es	M	ot Applic M loderate V	1C - McNo C - Ver No	No -1: No No	1 -14 3a	WCI 1	Droughtiness	3a
SP 48100 13400 448100 213400 68	≤7	32	45 1	2 10YR3/4 3 10YR4/4 5 10YR3/3			No No	MSL - Me SCL - San SCL - San SCL - San	6 30	GH - Gravel GH - Gravel	with non-porous with non-porous with non-porous with non-porous	(hard) ston (hard) ston	es es	M M	ot Applic N loderate N loderate N loderate	ON - NNo	No No	-8 3a	WCI 1	Droughtiness	3a
SP 48200 13400 448200 213400 68	≤7	S 0 36 46 50	46 10 50 4	6 10YR4/4 0 7.5YR4/4 7.5YR4/4 0 7.5YR4/4			No No	SCL - San SCL - San SCL - San MS - Med	10 50	GH - Gravel GH - Gravel	with non-porous with non-porous with non-porous with non-porous	(hard) ston (hard) ston	es es	M	ot Applic N loderate N loderate N loderate N	ON - NNo	No No	3 -18 3a	WCI 1	Droughtiness	3a
3 SP 47360 13300 447360 213300 67	≤7	S																		N/A	Allotment
\$ SP 47420 13300 447420 213300 67	≤7	28	28 29 51 29 120 69	8 10YR3/3 3 10YR4/6 9			No	SCL - San SCL - San MS - Med	5	GH - Gravel	with non-porous with non-porous with non-porous	(hard) ston	es	M	ot Applic N loderate N loderate	ON - NNO	No -16 No No	5 -16 3a	WCI 1	Droughtiness	3a
S SP 47700 13300 447700 213300 67	≤7	30	60 3	0 7.5YR4/4 0 7.5YR4/3 0 7.5YR5/3			No	MSL - Me MSL - Me SCL - San	10	GH - Gravel	with non-porous with non-porous with non-porous	(hard) ston	es	M	ot Applic N loderate N loderate N	ON - NNo	No No	1 2	WCI 1	Droughtiness	2
6 SP 47800 13300 447800 213300 68	≤7	27	54 2	7 7.5YR4/3 7 7.5YR4/4 6 7.5YR5/4			No	MSL - Me MSL - Me MSL - Me	8	GH - Gravel	with non-porous with non-porous with non-porous	(hard) ston	es	M	ot Applic N loderate N loderate N	ON - NNo	No No	-10 3a	WCI 1	Droughtiness	3a

Grid ref.	Depth (cm) Matrix Ochreous Mottles Grey Mottles	Stones - t		SUBS STR CaCO3 Mn C SPL Drought Wet	Final ALC	Profile notes
oint NGR X Y Alt (m) Slope ° Aspect Land use	Top Bttm Thick Munsell colour Form Munsell colour Form Munsell colour	Gley Texture % > 2cm > 6c	rm Type % > 2cm > 6cm Type Strength Size Shape	SUBS STR CaCO3 Mn C SPL MBw MBp Gd WC Gw	Limitation 1 Limitation 2 Limitation 3 Grade	-Profile notes
	30 70 40 7.5YR4/3	NO MSL - Me 3 1 0 NO MSL - Me 6 NO SCL - San 20	GH - Gravel with non-porous (hard) stones GH - Gravel with non-porous (hard) stones GH - Gravel with non-porous (hard) stones	Not Applic NON - NNo No 31 6 2 WC I 1 Moderate NON - No No Moderate NON - Non-cal No	Droughtiness 2	
		No SCL - San 6 2 0 No C - Clay 10 C - Clay 80	GH - Gravel with non-porous (hard) stones GH - Gravel with non-porous (hard) stones GH - Gravel with non-porous (hard) stones	Not Applic MC - Mr No No -19 -18 3a WC I 1 Moderate VC - Vet No No No	Droughtiness 3a	
4	33 45 12 10YR4/4	NO MSL - Mel 2 1 0 NO SCL - San 16 NO SCL - San 30 SCL - San 80	GH - Gravel with non-porous (hard) stones	Not Applic NON - No No -7 -8 3a WC I 1 Moderate NON - No No No Moderate NON - No No No Moderate NON - No	Droughtiness 3a	
	32 64 32 7.5YR4/3	No MSL - Mel 4 2 0 No MSL - Mel 6 No SCL - San 20	GH - Gravel with non-porous (hard) stones GH - Gravel with non-porous (hard) stones GH - Gravel with non-porous (hard) stones	Not Applic NON - N No No 30 4 2 WC I 1 Moderate NON - N No No Moderate NON - Non-cal No	Droughtiness 2	
		No MSL - Md 4 No SCL - San 5 SCL - San 80	GH - Gravel with non-porous (hard) stones GH - Gravel with non-porous (hard) stones GH - Gravel with non-porous (hard) stones	Not Applic SC - Slig No No -18 -21 3a WC I 1 Moderate VC - Vet No No	Droughtiness 3a	
		NO MSL - Me 1 No SCL - San 5 SCL - San 80	GH - Gravel with non-porous (hard) stones GH - Gravel with non-porous (hard) stones GH - Gravel with non-porous (hard) stones	Not Applic SC - Slig No No -15 -18 3a WC I 1 Moderate WC - Ver No No No	Droughtiness 3a	
	28 60 32 7.5YR4/3	NO MSL - Md 4 2 2 NO MSL - Md 8 NO SCL - San 20	GH - Gravel with non-porous (hard) stones GH - Gravel with non-porous (hard) stones GH - Gravel with non-porous (hard) stones	Not Applic NON - No No 27 2 2 WC I 1 Moderate NON - No No Moderate NON - Non-cal No	Droughtiness 2	
END						

	Grid ref.			1		D-	epth (ci	m) la	Matrix	Ochreous Mottles	Grey Mottles			Stones - ty	ne 1	Stones - type 2 Ped	T T			Drought	Wet	Final ALC	
oint NGR	X Y	Alt (m) Slope o	Aspect	Land use					ur Form Munsell colour		Gley	Texture			6 > 2cm > 6cm Type Strength Size	Shape SUBS ST	TR CaCO3 N	In C SPL	Drought MBw MBp Gd WC	Gw	Limitation 1 Limitation 2 Limitation	3 Grade
	3100 448000 2131	100 67	≤7	S		0	30	30 7	7.5YR4/4				MSL - Me	1 1		el with non-porous (hard) stones	Good	SC - Slig N	o No	-14 -15 3a WC	1 1	Droughtiness	3a
						30	40	10 7	7.5YR4/4			No	MSL - Me	dium sandy loam			Modera	ite NON - NN	o No				
						40 50	50 120		7.5YR3/4				SCL - San SCL - San			el with non-porous (hard) stones el with non-porous (hard) stones	Modera Poor	nte NON - NN	o No No				
						50	120	70					SCL - San	80	GH - Grav	er with non-porous (nard) stones	Poor		INO				
						_						ļ.,											
SP 48000 130	3000 448000 2130	000 67	≤7	S		0 30			7.5YR3/3 7.5YR3/4			No	MSL - Me	1 1 dium sandy loam	GH - Grav	el with non-porous (hard) stones	Not App	plic SC - Slig N ite NON - NN	o No	-7 -6 3a WC	1	Droughtiness	3a
							60	20 7	7.5YR3/4 7.5YR3/4			No	SCL - San	dium sandy idam 10	GH - Grav	el with non-porous (hard) stones		ite NON - NN					
							120		7.51115/4				SCL - San			el with non-porous (hard) stones	Poor	11011	No				
SP 48000 129	900 448000 2129	900 67	<7	S																		No access - deer enclosure	
31 40000 12.	.500 440000 E1E.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		3																		no decess deer enclosure	
SP 48100 129	900 448100 2129	900 68	≤7	S					10YR3/4			No	MSL - Me	1 1	GH - Grav	el with non-porous (hard) stones	Not Ap	plic NON - NN	o No	-35 -29 3b WC	1	Droughtiness	3b
									10YR4/4				MS - Med			el with non-porous (hard) stones		nte NON - NN					
						50	120	/0 /	7.5YR3/4			NO	MS - Med	80	GH - Grav	el with non-porous (hard) stones	Poor	NON - NN	o No				
												L										-	
SP 48200 129	900 448200 2129	900 68	≤7	S			40 100		7.5YR3/4 7.5YR3/3			No	MSL - Me MSL - Me	3 3		el with non-porous (hard) stones el with non-porous (hard) stones		plic SC - Slig N ite SC - Slig N		21 4 2 WC	1 1	Droughtiness	2
							100		/.STK5/3				MSL - Me	80		el with non-porous (hard) stones el with non-porous (hard) stones	Modera	ite SC - Slig N	NO No				
																(,	1						
SD 49300 120	900 448300 2129	200 66	<7	c		n	30	20 1	10YR3/4			No	SCL - San	1	GH - Grav	el with non-porous (hard) stones	Not An	plic NON - NN	o No	-11 -3 3a WC	1 1	Droughtiness	22
31 40300 12.	.500 440500 2125	00 00	٥,	,					10YR3/3			No	SCL - San	3		el with non-porous (hard) stones	Modera	te NON - NN	o No	-11 -5 5a WC	. 1	Diougnemess	36
									10YR3/4			No	HCL - Cla	5	GH - Grav	el with non-porous (hard) stones	Poor	NON - NY	es No				
						80	120	40					MS - Med	80	GH - Grav	el with non-porous (hard) stones	Poor		No				
SP 47800 128	800 447800 2128	800 63	≤7	S																		No access - deer enclosure	
SP 47900 128	800 447900 2128	800 63	≤7	S																		No access - deer enclosure	
ED 49000 131	800 448000 2128	200 62	-7	c																		No access - deer enclosure	
3F 46000 126	.800 448000 2128	500 62	27	3																		No access - deer eficiosure	
SP 48100 128	800 448100 2128	800 62	≤7	S		0	40	40 1	10YR4/4			No	MSZL - N	1	GH - Grav	el with non-porous (hard) stones	Not Ap	olic NON - NN	o No	-4 -4 3a WC	II 2	Droughtiness	3a
									7.5YR4/4				HCL - Cla			el with non-porous (hard) stones		ite NON - NN					
						50	120	70					C - Clay	80	GH - Grav	el with non-porous (hard) stones	Poor		Yes				
												<u> </u>											
SP 48200 128	800 448200 2128	800 62	≤7	S		0 38	38	38 1	10YR4/4 10YR4/6				SCL - San HCL - Cla		GH - Grav	el with non-porous (hard) stones el with non-porous (hard) stones	Not Ap	plic VSC - VeN ite NON - NN	o No	13 7 2 WC	1	Droughtiness	2
							80		10YR4/6 10YR4/6	MD - N7.5YR5/6			C - Clay			el with non-porous (hard) stones el with non-porous (hard) stones	Modera	NON - NN					
						80	100	20 7	7.5YR5/3	MD - 1 7.5YR4/6		Yes	C - Clay	5	GH - Grav	el with non-porous (hard) stones	Poor	NON - NN	o Yes				
							120	20		•			C - Clay	80		el with non-porous (hard) stones	Poor		Yes				
CD 40200 424	800 448300 2128	200 60	-77	c		0	25	25 4	10VD4/4			No	MCL CI-	1	CH C	ol with non parous (hard) stones	Not A	olic NON AND	o N-	4 7 3a WC	`II 2	Droughtinoss	22
5F 48300 128	:000 448300 2128	Ua uua	2/	5		J 35	35 40		10YR4/4 10YR4/4			No.	MCL - Cla HCL - Cla	5	GH - Grav	el with non-porous (hard) stones el with non-porous (hard) stones	Moders	plic NON - NN ite NON - NN	o No	4 7 3a WC	. 11 2	Droughtiness	38
									10YR4/4	FF - Fe 7.5YR5/6			HCL - Cla			el with non-porous (hard) stones		ite NON - NN					
						1 .			10YR4/2	MD - N7.5YR5/6	1	L	la a 210	-		el with non-porous (hard) stones		1				Í.	- 1
									101K4/2	IVID - II 7.51K5/6		Yes	C - Clay				Poor	NON - NN	o Yes				
							80 120		101K4/2	MD - 17.51K5/6		Yes	C - Clay			el with non-porous (hard) stones	Poor	NON - NN	o Yes				

		Final ALC	Wet		Drought	$\overline{}$		1			ed			nes - type 2	S+	ne 1	ones - t	Stor		Т 1	Grey Mottles	Ochreous Mottles	Matrix	n (cm)	Depth				$\overline{}$		Grid ref.		
24900 12700 447900 212700 63	Grade					SPL	Mn C	CaCO3	UBS STR	ane S			vne '			n Tyne	> 60	% > 2cm	Texture	Gley	Form Munsell colour					ect Land use	° Aspe	(m) Slope	Alt	lv	X X	NGR	oint
P 48000 12700 448000 212700 62 ≤7 S No access - deer enclosure No access - deer enclosure No SCL - San 1 GH - Gravel with non-porous (hard) stones (hard)	Grade	Elimenton 2			ion prop po					upc	5120	ti ciigtii	ypc .	p ociii ji	70 P ZCII	прурс		70 F Zeiii			rom mansen colour	orm promocii corour	nansen coloai	jex	TOP DEC	1		- 1	,	1.	l.	, redit	
2 48100 12700 448100 212700 62 ≤7 S		No access - deer enclosure																									S	≤7	00 63	0 212700	12700 4479	SP 47900	96
2 48100 12700 448100 212700 62 ≤7 S																																	
2 48100 12700 448100 212700 62 ≤7 S		1																															
2 48100 12700 448100 212700 62 ≤7 S		1																															
2 48100 12700 448100 212700 62 ≤7 S		1																															
2 48100 12700 448100 212700 62 ≤7 S		1																															
40 50 10 10/R5/4 NO 110/R5/4 ND - h 7.5YR5/6 NO 10 10/R5/4 ND - h 7.5YR5/6 NO NO HCL - Cla 1 GH - Gravel with non-porous (hard) stones Poor Poor NON - NO NO NON - NO NO NON NON	†	No access - deer enclosure																									S	≤7	00 62	0 212700	12700 4480	SP 48000	7
40 50 10 10/R5/4 NO 110/R5/4 ND - h 7.5YR5/6 NO 10 10/R5/4 ND - h 7.5YR5/6 NO NO HCL - Cla 1 GH - Gravel with non-porous (hard) stones Poor Poor NON - NO NO NON - NO NO NON NON		1																															
40 50 10 10/R5/4 NO 110/R5/4 ND - h 7.5YR5/6 NO 10 10/R5/4 ND - h 7.5YR5/6 NO NO HCL - Cla 1 GH - Gravel with non-porous (hard) stones Poor Poor NON - NO NO NON - NO NO NON NON		1																															
40 50 10 10/R5/4 NO 110/R5/4 ND - h 7.5YR5/6 NO 10 10/R5/4 ND - h 7.5YR5/6 NO NO HCL - Cla 1 GH - Gravel with non-porous (hard) stones Poor Poor NON - NO NO NON - NO NO NON NON																																	
40 50 10 10/R5/4 NO 110/R5/4 ND - h 7.5YR5/6 NO 10 10/R5/4 ND - h 7.5YR5/6 NO NO HCL - Cla 1 GH - Gravel with non-porous (hard) stones Poor Poor NON - NO NO NON - NO NO NON NON		1																															
40 50 10 10/R5/4 NO 110/R5/4 ND - h 7.5YR5/6 NO 10 10/R5/4 ND - h 7.5YR5/6 NO NO HCL - Cla 1 GH - Gravel with non-porous (hard) stones Poor Poor NON - NO NO NON - NO NO NON NON																																	
S0 90 40 10YR4/2 MD - h 7.5YR5/6 No HCL - Clal 10 GH - Gravel with non-porous (hard) stones Poor NON - NNo Yes Yes Yes Poor Non - NNo Yes Poor Non - NNo No Poor Non No Poor	2	Droughtiness Wetness	/CII 2	2 W	2 2	No	NNo	NON -	Not Applic	N		;	d) stone	n-porous (ha	vel with no	GH - Gra		1	SCL - San	No			0YR4/4	40	0 40		S	≤7	00 62	0 212700	12700 4481	SP 48100	3
90 120 30 C - Clay 80 GH - Gravel with non-porous (hard) stones Poor Yes 2 48200 12700 448200 212700 62 57 S 0 30 30 10YR4/3 30 40 10 10YR4/4 No HCL - Clay loam (heavy) No SCL - Sandy clay loam (heavy) No HCL - Clay loam (heavy) No Moderate NON - NNo No 20 4 2 WC II 2 Droughtiness Wetness No Moderate NON - NNo No		-										5	d) stone	n-porous (ha	vel with no	GH - Gra																	
2 48200 12700 448200 212700 62 ≤7 S 0 30 30 10YR4/3 No SCL - Sandy clay loam Not Applic NON - NNo No 20 4 2 WC II 2 Droughtiness Wetness No HCL - Clay loam (heavy) Moderate NON - NNo No						Yes	NNo	NON -	oor	P										No		MD - N7.5YR5/6	0YR4/2										
30 40 10 10YR4/4 No HCL - Clay loam (heavy) Moderate NON - NO NO		1				Yes			oor	P		5	d) stone	n-porous (ha	vel with no	GH - Gra		80	C - Clay					30	90 120								
30 40 10 10YR4/4 No HCL - Clay loam (heavy) Moderate NON - NO NO		1																															
30 40 10 10YR4/4 No HCL - Clay loam (heavy) Moderate NON - NO NO		1																															
30 40 10 10YR4/4 No HCL - Clay loam (heavy) Moderate NON - NO NO	2	Droughtiness Wetness	/CII 2	2 W	0 4 2	No	NNo	NON -	Not Applic	N							n	dy clay loam	SCL - San	No			0YR4/3	30	0 30		S	≤7	00 62	0 212700	12700 4482	SP 48200	9
40 45 5 10YR5/4 FF - Fe 7.5YR5/6 No HCL - Clay loam (heavy) Moderate NON - NO No						No	NNo	NON -	√oderate	N													0YR4/4	10	30 40								
		'								N							avy)	loam (heav	HCL - Clay	No					40 45								
45 65 20 10YR5/4 MD - h 7.5YR5/6 No C - Clay Poor NON - NO NO NO		1																															
65 80 15 10YR5/3 MD - h 7.5YR5/6 Yes C - Clay Poor NON - NO Yes							NNo	NON -												Yes		MD - N7.5YR5/6	0YR5/3										
80 120 40 C - Clay Poor Yes						res			oor	P									L - Clay					J 40	80 120								
SID.	+-	+				+	-																									END	

Point Grid NGR : 100 SP 48100 13200	X Y Alt (n	n) Slope ° ≤7	Aspect Land use	Top Bt			Ochreous Mottles Grey Mottles r Form Munsell colour Form Munsell col	lour	Texture			Stones - type 2 Ped 5 > 2cm > 6cm Type Strength Size Shape	SUBS STR	CaCO3 Mn (SPL	w MBp (Wet Gd WC Gw	Final ALC Limitation 1 Limitation 2 Limitation 3	3 Grade
	448100 213200 68	≤7	-						-				t .	00 00 10	1 1	- ,ор			
	-					10YK3/3		No	HCL - Cla	2 GH	H - Grave	el with non-porous (hard) stones	Not Appli	ICISC - SIIRINO	No -29	-29	Bb WC III 2	Microrelief Droughtiness	3b
				30 35	5	10YR4/4			C - Clay	10 GH	H - Grave	el with non-porous (hard) stones	Poor	VC - VerYes	No				
				35 12	0 85				C - Clay	80 GH	H - Grave	el with non-porous (hard) stones	Poor		Yes				
01 SP 48200 13200	440000 040000 00					401/02/2						1 21 (0 0)							
101 SP 48200 13200 4	448200 213200 68	≤7	S	10 20	10	10YR3/3 7.5YR3/3		No	MCL - Cla	2 GH	H - Grave	el with non-porous (hard) stones el with non-porous (hard) stones	Poor	SC - Slig No	NO -54	-54 4	4 WCI 1	Droughtiness	4
					0 100			INO	HCL - Cla			el with non-porous (hard) stones	Poor	SC - SIIgINO	No				
				20 12	.0 100				HCL - Cla	ou dn	n - Grave	er with non-porous (nard) stories	FUUI		INO				
102 SP 48300 13200	448300 213200 66	≤7	S	0 40	40	10YR3/4		No	SCL - Sar	2 GH	H - Grave	el with non-porous (hard) stones	Not Appli	ic SC - Slig No	No 16	8 :	2 WCI 1	Droughtiness	2
				40 90	50	7.5YR4/4		No	HCL - Cla	10 GH		el with non-porous (hard) stones		SC - Slig No	No				
				90 12	0 30				HCL - Cla	80 GH	H - Grave	el with non-porous (hard) stones	Moderate	2	No				
			_										L	1	l				4
103 SP 48400 13200	448400 213200 63	≤7	S	0 30		10YR4/4			SCL - Sar		H - Grave	el with non-porous (hard) stones	Not Appli	ic NON - NNo	No 31	10 7	2 WCI 1	Droughtiness	2
				30 40 40 59		7.5YR3/4 10YR4/4			MCL - Cla			el with non-porous (hard) stones		NON - NO	No No				
				-10 55	15			No	HCL - Cla	2 GH		el with non-porous (hard) stones	Moderate	NON - NNo	No No				
						10YR5/6 10YR4/6						el with non-porous (hard) stones			No No				
				100 10		TOTK4/P		NO	C - Clay C - Clay	∠ GH	n - Grave	el with non-porous (hard) stones	Moderate Poor	NON - NNo	No Yes				
				100 12	.0 20				c - ciay				1001		res				
104 SP 48100 13100	448100 213100 69	≤7	S	0 20) 20	10YR2/2		No	MSI - MA	dium sandy loam	-+		Not Appli	icable No	No -49	-50	Bb WCI 1	Microrelief Droughtiness	3h
104 3F 46100 13100 4	440100 213100 00	2/			0 100	101K2/2		NO	MSL - M		H - Grave	el with non-porous (hard) stones	Poor	l lvo	No -40	-30 3	SD WC1 1	Wilci oreliei Di ougritilless	30
					.0 100				14152 141	00		- With hor porous (nard) stories			1.0				
105 SP 48200 13100 4	448200 213100 68	≤7	S	0 20	20	7.5YR2.5/3		No	SCL - Sar	5 GH	H - Grave	el with non-porous (hard) stones	Not Appli	ic VC - Ver No	No -48	-50 1	Bb WCI 1	Microrelief Droughtiness	3b
				20 12	0 100				SCL - Sar	80 GH	H - Grave	el with non-porous (hard) stones	Poor		No			_	
106 SP 48300 13100	448300 213100 66	≤7		0 35		10YR4/4			MSL - M			el with non-porous (hard) stones		ic SC - Slig No	No -12	-14	Ba WCI 1	Droughtiness	3a
				35 40		10YR3/4			HCL - Cla			el with non-porous (hard) stones	Moderate	e VC - VerNo	Yes				
				40 60		10YR3/4		No	SCL - Sar	40 GH		el with non-porous (hard) stones		SC - Slig No	No				
				60 12	0 60	10YR3/4		No	SCL - Sar	80 GH	H - Grave	el with non-porous (hard) stones	Moderate	e No	No				
107 SP 48400 13100	440400 212100 62	-7		0 40	40	10YR4/4		NI-	SCL - Sar	2 (1		el with non-porous (hard) stones	Not Appl	- CC CII-NI-	N - 27	-	2 WCI 1	Droughtiness	2
107 SP 48400 13100 4	448400 213100 62	5/		40 70		10YR4/4 10YR4/6			SCL - Sar			el with non-porous (hard) stones		NON - NNo	NO 27	/ 4	2 WCI 1	Droughtiness	2
				70 80		10YR4/6	FF - Fe 7.5YR5/6		SCL - Sar		H - Grave	el with non-porous (nard) stones		NON - NNO	No				
				80 95		101R4/6	FF - Fe 7.5YR5/6	No.	C - Clay			el with non-porous (hard) stones	Poor	NON - INIO	No				
				95 12	0 25	101113/0	11 -167.5113/0	140	C - Clay			el with non-porous (hard) stones	Poor	140	Yes				
				JJ 11	.0 25				c cia,	3		- With hor porous (nard) stories							
108 SP 48500 13100 4	448500 213100 62	≤7	S	0 20	20	10YR2/2		No	MCL - Cl	2 GH	H - Grave	el with non-porous (hard) stones	Not Appli	icable No	No -38	-38	3b WC IV 3b	Microrelief Droughtiness Wetness	3b
				20 30		10YR5/3	MD - N 7.5YR5/6		C - Clay			el with non-porous (hard) stones	Poor	No	Yes			_	
				30 12	0 90				C - Clay	80 GH	H - Grave	el with non-porous (hard) stones	Poor		Yes				
109 SP 48120 13000	448120 213000 68	≤7				7.5YR3/3		No	MCL - Cl	1 GH	H - Grave	el with non-porous (hard) stones	Not Appli	ic VC - VerNo	No -50	-50 3	Bb WCIV 3b	Microrelief Droughtiness Wetness	3b
				18 12	0 102				MCL - Cl	80 GH	H - Grave	el with non-porous (hard) stones	Poor		Yes				
														1 1					
110 SP 48200 13000	448200 212000 60	<7	S	0 30	30	7.5YR4/3		No	MSI - M	3 (1)	H - Grave	el with non-porous (hard) stones	Not Appli	ic VC - Ver No	No -F	-6	Ba WCI 1	Droughtiness	32
220 31 40200 13000 f		-/		30 60		7.5YR4/3 7.5YR4/3			SCL - Sar			el with non-porous (nard) stones	Moderate	SC - Slig No	No -3	-0 3	WC1 1	D. Gugiitii ess	30
				60 12				140	SCL - Sar	80 GH		el with non-porous (hard) stones	Moderate		No				
				-0 12	_ 00				JCE - 3d1	Gn	Jiavi	porous (nara) stolles	.vioueiate	1 1	1				
														1 1					
														1 1					
														1 1					
		≤7	S	0 40	40	10YR4/4		No	MSZL - N	1 GH	H - Grave	el with non-porous (hard) stones	Not Appli	ic NON - NNo	No 30	17	1 WCI 1	Droughtiness	2
11 SP 48400 13000	448400 213000 62							No	MCL - Cl	5 GH	H - Grave	el with non-porous (hard) stones	Moderate	VSC - VeNo	No	-			1
11 SP 48400 13000	448400 213000 62		l	40 65	25	10YR4/4													
.11 SP 48400 13000	448400 213000 62												Poor						
SP 48400 13000	448400 213000 62			40 65 65 70 70 90	5	10YR4/4 10YR4/4 10YR4/4	MD - N7.5YR5/6	No	C - Clay C - Clay	10 GH	H - Grave	el with non-porous (hard) stones el with non-porous (hard) stones		NON - NNo NON - Non-c	No				
111 SP 48400 13000 4	448400 213000 62			65 70 70 90	5	10YR4/4	MD - 1 7.5YR5/6	No	C - Clay	10 GH	H - Grave H - Grave	el with non-porous (hard) stones	Poor	NON - NNo	No				

	m) Slope	° Aspect Land use	Depth Top Bttn	(cm) N	Matrix Munsell coloui	Ochre	ous Mottles	Grey Mott	tles colour Gley	Textur	e %	Stones - type 1	Stones - type 2	Ped Size Shape	SUBS STR C	aCO3 Mn C	SPL Drough	nt Wet	Final ALC Limitation 1 Limitation 2 Limitatio	n 3 Grade
112 SP 48400 12900 448400 212900 62	≤7	S	0 30 30 40 40 50 50 80	30 1 10 1 10 1		FD - Fe 7.: CD - C17.: FF - Fe 7.:	5YR5/6 5YR5/6	'	No Yes Yes	HCL - C HCL - C C - Clay HCL - C C - Clay	Clar 1 Clar 5 y 5 Clar 5	GH - Gra GH - Gra GH - Gra GH - Gra	vel with non-porous (hard) stones		Not Applic N Moderate N Poor	ION - NNO ION - NNO ION - NNO ION - NNO		2 WC I 2	Droughtiness Wetness	2
113 SP 48300 12700 448300 212700 60		c																	N/A	Off site
113 37 48300 12/00 446300 212/00 00	3/	3																	N/A	Off site
114 SP 48400 12700 448400 212700 62	≤7	S																	N/A	Off site
115 SP 48500 12700 448500 212700 62	≤7	S																	N/A	Off site
116 SP 48100 12600 448100 212600 61	≤7	S																	N/A	Off site
117 SP 48200 12600 448200 212600 61	≤7	S																	N/A	Off site
118 SP 48300 12600 448300 212600 62	≤7	S																	N/A	Off site
119 SP 48400 12600 448400 212600 62	≤7	S																	N/A	Off site
120 SP 48100 12500 448100 212500 61	≤7	S																	N/A	Off site
121 SP 48200 12500 448200 212500 61	≤7	S																	N/A	Off site
122 SP 48400 12500 448400 212500 62	≤7	S																	N/A	Off site
END								1			+									

oint	NGR	V	v	Alt	t (m)	lope °	Aspec	t Land us			th (cm)			r Eorm la 4.	incell colour	Form Munsell col		y Te	kture	Stones - type 1 Stones - type 2 Ped SUBS STR CaCO3 Mn C SPL MBw MBp Gd WC Gw Limitation 1 Limitation 2 Limitation 3 Gr
2	NGR SP 48600 13	X 2500 444	Seuc 34	2500 62		7	· .		100		tm Thic			ı Form Mu	unsen colour	rorm iviunseli col	Juli	8.01	% CL - Cla 0	
•	37 40000 13	3300 446	5000 21	3300 03		./	3		27		10 93			CP - Cc10	YR5/6		Yes		Clay 0	0 HR - All hard rocks or stones (i.e. those which cannot be scratched will Poor NON - NYes Yes HR - All hard rocks or stones (i.e. those which cannot be scratched will Poor NON - NYes Yes
4	SP 48680 13	3500 448	8680 21	3500 62	:	7	S		0	26		10YF							CL - Cla 0	
									26 55 90	90	29 35 0 30	2.5Y	5/1	CP - Cc10 ^o CP - Cc10 ^o CP - Cc10 ^o	YR5/6		Yes	HC	Clay 0 L - Clar 0 IS - Loa 1	0 HR - All hard rocks or stones (i.e. those which cannot be scratched will Poor NON - NO Yes
5	SP 48600 13	3400 448	8600 21	3400 63	:	7	S		0 25 60		5 25 0 35 0 60		5/2	CP - C(10) CD - C(10)				s SC	ZL - M 3 - Sand 3 IS - Loa 1	3 HR - All hard rocks or stones (i.e. those which cannot be scratched wil Poor NON - NOV Yes
:6	SP 48700 13	3400 448	3700 21	3400 62	: :	:7	S		0 20 30 60 80	20 30 60 80 12	10	10YF 10YF 10YF 10YF 2.5Y	4/4 6/3 6/3	CD - C(10) CD - C(10) CP - C(10)	YR5/6		No Yes Yes	HC C - SCI	CL - Cla 0 L - Cla 0 Clay 0 L - San 0 IS - Loa 1	0 HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate NON - NNo Yes 0 HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate (NON - NNo NNO
27	SP 48800 13	3400 448	3800 21	3400 63		7	S		0 25	25 12	5 25 20 95			CP - Cc10 ^o	YR5/6		Yes		CL - Cla 0 Clay 0	
28	SP 48600 13	3300 448	8600 21	3300 62	: :	:7	S		0 30 50 60		20	10YF 10YF 10YF	5/3 5/4	CD - C(10)	YR5/6		Yes No No	SCI LM	SZL - M 5 L - San 5 IS - Loa 1 S - Med 3	5 HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate NON - NNo 15 HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate NON - NNo
29	SP 48700 13	3300 448	3700 21	3300 63	:	:7	S		0 20 50 60				5/5 5/4				No No No	HC MS	CL - Cla 2 L - Cla 2 SL - Me 5 S - Mec 1	2 HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate NON - NO NO HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate NON - NO NO
30	SP 48800 13	3300 448	8800 21	3300 61	. :	7	S		0 28 38 80			2.5Y	4/4 5/2	CP - Cc10 ⁹ CP - Cc10 ⁹			No Yes Yes	SCI SCI	SZL - M 0 L - San 0 L - San 0 S - Med 1	0 HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate NON - NNo No HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate NON - NNo No
31	SP 48880 13	3300 448	3880 21	3300 61	. :	:7	S		0 20 40 60	60	0 20 0 20 0 20 0 20	10YF	4/4	CD - C(10)	YR5/6		No No Yes	M	CL - Cla 1 CL - Cla 2 CL - Cla 2 L - Cla 2 L - Cla 2	2 HR - All hard rocks or stones (i.e. those which cannot be scratched wij Moderate SC - Slig No No
32	SP 48600 13	3200 448	8600 21	3200 62	: :	7	S		0 30 50 70	70	0 30 0 20 0 20 20 50	10YF	5/4 5/4				No No No	SCI	5ZL - M 5 L - San 5 GL - Me 5 IS - Loa 1	5 HR - All hard rocks or stones (i.e. those which cannot be scratched wi Moderate NON - NNO NO NO HR - All hard rocks or stones (i.e. those which cannot be scratched wi Moderate NON - NNO NO
33	SP 48700 13	3200 448	3700 21	3200 63		:7	S		0 22 45 70	45 70	22 3 23 0 25 10 50	10YF	4/4 5/3	CD - C(10)	YR5/6		No Yes No	MC HC	SZL - M 2 CL - Cla 2 L - Cla 2 IS - Los 2	2 HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate NON - NO 2 HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate NON - NO NO
34	SP 48800 13	3200 448	8800 21	3200 61	:	:7	S		0 22 35 55	35 55	22 i 13 i 20	10YF	4/4	CD - C(10)	YR5/6		No Yes No	MC HC	5ZL - M 2 CL - Cla 2 L - Cla 2 5 - Mec 2	2 HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate NON - NO

							Matri		Ochreous Mottles	Grey Mottles			Stones - type 1 Stones - type 2				Drought Wet		
NGR	X Y	(m) Slope	Aspe	t Land use	Тор В	Bttm T	hick Muns	ell colour	Form Munsell colour	Form Munsell colour Gley	Textur	%	> 2cm > 6cm Type % > 2cm > 6cm Type Strengt	gth Size Shape	SUBS STR CaCO3	IVIII C	MBw MBp Gd WC Gw	Limitation 1 Limitation 2 Limitation	3 Grade
SD 48900 123	200 448900 213200 61	≤7	S		0 2	25 2	5 10YR	1/2			MCL -	Cla 2	HR - All hard rocks or stones (i.e. those which can	annot he scratched with	h a finger (NON - N	on-ca	Icarev11 10 2 WC II 2	Droughtiness Wetness	2
31 40300 132	100 440300 213200 01	٠,	,		25 5		5 2.5Y5		CP - Cc10YR5/6	Yes	HCL - C		HR - All hard rocks or stones (i.e. those which can					Diougnamess weathess	ľ
							0 2.5Y5		CP - Cc10YR5/6		SCL - S		HR - All hard rocks or stones (i.e. those which can						
					70 1	120 5	0 10YR	5/4		No	MS - N	Иес 10	HR - All hard rocks or stones (i.e. those which can	nnot be scratched wi	Moderate NON - N	No	No		
6 SP 49000 123	200 449000 213200 62	<7	c		0 2	25 2	5 10YR	1/2			MCL -	Cla 2	HR - All hard rocks or stones (i.e. those which can	annot he coratched with	h a finger (NON - N	on-ca	Icarev11 11 2 WC II 2	Droughtiness Wetness	2
0 3F 45000 132	200 449000 213200 02	2/	3		25 3		0 10YR			No	MCL -		HR - All hard rocks or stones (i.e. those which can					Droughtness wetness	2
					35 6		5 10YR		CP - Cc7.5YR5/6		HCL - C		HR - All hard rocks or stones (i.e. those which can	nnot be scratched wi	Moderate NON - N	Yes	Yes		
						70 1			CP - Cc7.5YR5/6		SCL - S		HR - All hard rocks or stones (i.e. those which can	nnot be scratched wi	Moderate NON - N	No	No		
					70 1	120 5	0 10YR	5/4		No	MS - N	Иес 10	HR - All hard rocks or stones (i.e. those which can	nnot be scratched wi	Moderate NON - N	No	No		
SD 49900 121	100 448800 213100 62	<7	S		0 2	22 2	2 10YR	1/2			MSZL -	- M2	HR - All hard rocks or stones (i.e. those which can	annot he coratched with	h a finger (NON - N	on-ca	Icare/20 13 2 WC I 1	Droughtiness	2
7 3F 46600 131	100 446600 213100 02	2/	3			15 2				No	MCL -		HR - All hard rocks or stones (i.e. those which can	annot be scratched will	Moderate NON - N	No.	Yes VC1 1	Diougnuness	2
					45 7				CP - Cc10YR5/6	Yes			HR - All hard rocks or stones (i.e. those which can				Yes		
							0 2.5Y5		CP - Cc10YR5/6	Yes	MSL -	Me 10	HR - All hard rocks or stones (i.e. those which can				No		
					80 1	120 4	0 10YR	5/4		No	LMS -	Loa 20	HR - All hard rocks or stones (i.e. those which can	nnot be scratched wi	Moderate NON - N	No	No		
S SP 48900 121	100 448900 213100 62	<7	S		0 2	25 2	5 10YR-	1/3			MSL -	Me 2	HR - All hard rocks or stones (i.e. those which can	annot be scratched with	h a finger NON - N	on-ca	Icarec34 6 2 WC I 1	Droughtiness	2
. 50500 151		2/	-			55 3				No	SCL - S		HR - All hard rocks or stones (i.e. those which can						ľ
							5 2.5Y5		CP - Cc10YR5/6	Yes	HCL - C		HR - All hard rocks or stones (i.e. those which can						
							0 10YR			No	MSL -		HR - All hard rocks or stones (i.e. those which can						
SP 40000 121	100 449000 213100 61	<7	S		0 3)S 2	5 10YR-	1/2			MSL -	Me2	HR - All hard rocks or stones (i.e. those which can	annot he scratched with	h a finger MON N	on-co	Icarec16 5 2 WC II 1	Droughtiness	2
, 3F 45000 131	100 443000 213100 01	2/	3				5 10YR		CD - C(10YR5/6	Vec	SCL - S		HR - All hard rocks or stones (i.e. those which can					Droughtmess	
						90 2			CD - C(10YR5/6		MSL -		HR - All hard rocks or stones (i.e. those which can				No		
						120 3				No	LMS -		HR - All hard rocks or stones (i.e. those which can				No		
SD 40100 121	100 449100 213100 61	≤7	S		0 2	22 2	2 10YR	1/2			MCL -	Clan	HR - All hard rocks or stones (i.e. those which can	nnot be ceretebed with	h a finger NON N	on co	Icarec4 0 3a WC II 1	Droughtiness	2.0
0 3F 49100 131	100 449100 213100 01	2/	3				2 2.5Y5		CP - Cc10YR5/6	Ves	HCL - C		HR - All hard rocks or stones (i.e. those which can					Diougnuness	Sa
					55 6				CP - C(10YR5/6	Yes	SCL - S		HR - All hard rocks or stones (i.e. those which can				No		
					60 1	120 6	0 10YR	5/4		No	MS - N		HR - All hard rocks or stones (i.e. those which can				No		
CD 40000 130	000 448900 213000 62	<7	S		0 1	25 2	5 10YR	1/2			MSL -	14-2	HR - All hard rocks or stones (i.e. those which can		h - fir NON N		I 5 44 3- WC II 4	D	2-
SP 48900 130	JUU 4489UU 213UUU 62	5/	5		25 5		5 2.5Y6		CP - Cc10YR5/6	Ves	SCL - S		HR - All hard rocks or stones (i.e. those which can					Droughtiness	3d
							0 2.5Y6		CP - Cc10YR5/6		LMS -		HR - All hard rocks or stones (i.e. those which can				No		
						120 5				No	MS - N		HR - All hard rocks or stones (i.e. those which can	nnot be scratched wi	Moderate NON - N	No	No		
CD 40000 122	200 440000 242002 55	-7			0 0	νε °	1000	1/2			NACI .		UD All band and a natural field in the control of t		h - fi NO: :			Danishtis and	2-
2 SP 49000 130	000 449000 213000 61	≤7	5				5 10YR- 0 2.5Y6		CP - Cc10YR5/6	Vec	MSL - I		HR - All hard rocks or stones (i.e. those which can HR - All hard rocks or stones (i.e. those which can					Droughtiness	38
							5 10YR		0.10.113/0		MS - N		HR - All hard rocks or stones (i.e. those which can				No		
						- 0						1.0				_			
CD 40100 120	000 449100 213000 61	-7	S		0 3	24 2	4 10YR	1/2			MSL -	M4.2	HP. All band rocks or stones (i.e. 4hhi-h	annat ha carataha	h a finger NON A	on c-	Isarord O 3a MC II 4	Droughtings	22
5 5P 4910U 13U	WO 449100 513000 61	2/	5		24 6		4 10YK		CP - Cc10YR5/6	Vac	HCL - C		HR - All hard rocks or stones (i.e. those which can HR - All hard rocks or stones (i.e. those which can					Droughtiness	58
							0 10YR		C. C(101113/0	No.	LMS -		HR - All hard rocks or stones (i.e. those which can				No		
							0 10YR			No	MS - N		HR - All hard rocks or stones (i.e. those which can				No		
60 40400 :								. /2					10 40 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4					2 10	
4 SP 49100 129	900 449100 212900 61	≤7	5				2 10YR				MSL -		HR - All hard rocks or stones (i.e. those which can					Droughtiness	3a
						30 8	10YR- 0 2.5Y6		CP - Cc10YR5/6	No Yes	SCL - S	San 2	HR - All hard rocks or stones (i.e. those which can HR - All hard rocks or stones (i.e. those which can	innot be scratched will	viouerate NON - N	NO No	No.		
							0 2.516 0 10YR		C C(101N3/0	No.	MS - N		HR - All hard rocks or stones (i.e. those which can	annot be scratched with	Moderate NON - N	No	No		
							20110			l l l	100		The File Folks of Stories (i.e. those which can	be serotened will			1		
											1	1						1	- 1

NGR X	Alt (m)	p	Aspect Land use	Top	Bttm	Thick	intunsell colou	ur Form Munsell colour	IFORM IMUNSEII COLOUR		Texture % >	2cm > 6cm T	Type I	% > 2cm > 6cm Type	Strength Size Shan	e		M			Gw Li	mitation 1 Limitation 2 Limitat	tion 3
nt NGR X 5 SP 48800 12900 448800	0 212900 62	≤7	S				10YR4/2	ar i oriii iwanacii coloai	TOTAL INITIALISE COLOUR		MSL - Me 2		HR - All h	ard rocks or stones (i.e. those w	hich cannot be scratched	with a finge	CaCO3 Mn	calcarec-5	-3 3:	a WCI		roughtiness	110113
							10YR4/4			No	SCL - San 5			ard rocks or stones (i.e. those w							- [
				65	120	55	10YR5/4			No	MS - Med 40	н	HR - All h	ard rocks or stones (i.e. those w	hich cannot be scratched	wi Moderat	NON - NNo	No					
				1																			
SP 48900 12900 448900	0 212900 62	≤7	S				10YR4/2			l	MSL - Me 2			ard rocks or stones (i.e. those w					-15 3	a WC I	1 D	roughtiness	
							10YR4/4 2.5Y6/2	CP - Cc10YR5/6			SCL - San 2 SCL - San 5			ard rocks or stones (i.e. those w									
							10YR5/5	CP - CCIUTRS/6		No	LMS - Log 20		-IR - All II -IR - ΔII h	ard rocks or stones (i.e. those w ard rocks or stones (i.e. those w	mich cannot be scratched hich cannot he scratched	wi Moderati	NON - N No	No					
							10YR5/5				MS - Med 30	H	HR - All h	ard rocks or stones (i.e. those w	hich cannot be scratched	wi Moderat	NON - Non-	cal No					
SP 49000 12880 449000	0 212000 61	-7	S	0	25	25	10YR4/2				MSI - Me 2		JD All b	ard rocks or stones (i.e. those w	high cannot be coratched	with a finge	MON Non	calcares 1	12 2	a MC II	1 D	roughtiness	
37 49000 12000 449000	0 212000 01	2/	3				2.5Y6/2	CP - Cc10YR5/6		Yes	SCL - San 2			ard rocks or stones (i.e. those w					, -12 3	a WCII	1 0	rougntmess	
				55	120		10YR5/4			No	MS - Med 40	H	HR - All h	ard rocks or stones (i.e. those w	hich cannot be scratched	wi Moderat	NON - NNo	No					
				1																			
										L													
SP 48800 12800 448800	0 212800 61	≤7	S				10YR4/2				MSL - Me 2			ard rocks or stones (i.e. those w					-15 3	a WC I	1 D	roughtiness	
							2.5Y6/3	CP - Cc10YR5/6			SCL - San 2			ard rocks or stones (i.e. those w									
							10YR5/4 10YR5/5			NO No	SCL - San 20 MS - Mec 40	F	אר - All h אר - ∧וו ג	ard rocks or stones (i.e. those w ard rocks or stones (i.e. those w	mich cannot be scratched	wi Moderat	NON - NNO	No No					
				,,,	120	05	20110/0			140	IVIO - IVICUAU	,	All fi	and notices of acordes (i.e. criose w	cannot be stratched	iviouerati	- MOIN - MINO	140					
SP 48900 12800 448900	0 212800 61	≤7	S	0	26	26	10YR4/2		1	1	SCL - San 2		HR - All h	ard rocks or stones (i.e. those w	hich cannot be scratched	with a fines	NON - Non	calcare/?	4 2	a WCII	2 h	roughtiness	
JF 40300 12800 448900	0 2120UU DI	2/	3				2.5Y6/2	CP - Cc10YR5/6			HCL - Clar 2			ard rocks or stones (i.e. those w ard rocks or stones (i.e. those w					÷ 3	a WVCII	۷ ا	rougnitiness	
							10YR5/4				MS - Med 30			ard rocks or stones (i.e. those w									
				1																			
				1																			
										L													
SP 49000 12800 449000	0 212800 61	≤7	S				10YR4/2				MSL - Me 2			ard rocks or stones (i.e. those w					-19 3	a WC I	1 D	roughtiness	
							10YR5/3	CD - C(10YR5/6			SCL - San 2 MS - Mer 10			ard rocks or stones (i.e. those w									
				45	120	/5	10YR5/5			NO	IVIS - IVIEC 10	H	אר - All h أ	ard rocks or stones (i.e. those w	mich cannot be scratched	wilModerat	NUN - NNo	NO					
SP 49100 12800 449100	0 212800 61	<7	S	0	25	25	10YR4/2			1	SCL - San 2	H	HR - All h	ard rocks or stones (i.e. those w	hich cannot be scratched	with a finge	NON - Non-	calcarec-1) -9 3:	a WCII	2 n	roughtiness	
5100 12000 445100	11000 01		-				2.5Y6/3	CP - Cc10YR5/6			HCL - Clar 2			ard rocks or stones (i.e. those w						-	-		
					120		10YR6/5				MS - Med 50			ard rocks or stones (i.e. those w									
				1																			
SP 48720 12700 448720	0 212700 62	≤7	S				10YR4/2			L	SCL - San 2			ard rocks or stones (i.e. those w					-1 3	a WC II	2 D	roughtiness	
							2.5Y6/2 10YR5/5	CP - Cc10YR5/6			HCL - Clar 2			ard rocks or stones (i.e. those w									
					70 120		10YR5/5 10YR5/5				LMS - Loz 20 MS - Mec 40			ard rocks or stones (i.e. those w ard rocks or stones (i.e. those w									
				,,,	120	50	2011/3/3			140	IVIS - IVIEU-40	,	All II	and rocks of stories (i.e. tilose w	c. camiot be scidttiled	ivioueldu		140					
SP 48800 12700 448800	0 212700 61	<7	c	0	30	30	10YR4/2			1-	SCL - San 2		4D - All h	ard rocks or stones (i.e. those w	hich cannot be scratched	with a fines	NON - Non	calcarer 3	2 2	2 WC !!	2 0	roughtiness	
or 40000 12/00 448800	0 212/00 01	2/	3	30			2.5Y6/3	CP - Cc10YR5/6			HCL - Clar 2	F	-in - All h -IR - All h	ard rocks or stones (i.e. those w ard rocks or stones (i.e. those w	hich cannot be scratched	with a ringe wi Moderat	NON - NON-	No No	ے 5	a WVCII	۷ ا	rougnitiness	
					65		10YR5/3	CD - C(10YR5/6			SCL - San 10			ard rocks or stones (i.e. those w									
				65	120	55	10YR5/5				MS - Med 20			ard rocks or stones (i.e. those w									
SP 48900 12700 448900	0 212700 61	≤7	S				10YR4/2				MSL - Me 2			ard rocks or stones (i.e. those w					-28 3	a WC I	1 D	roughtiness	
							2.5Y6/3 10YR5/5	CP - Cc10YR5/6			MSL - Me 10 MS - Me 2			ard rocks or stones (i.e. those w ard rocks or stones (i.e. those w									
				33	120	85	101K3/5			INO	IVIS - IVIECZ	۲	nr - All h	aru rocks or stones (i.e. those w	mich cannot be scratched	willivioderat	E NUN - NNO	INO					
SP 49000 12700 449000	0 212700 61	≤7	S	0	20	20	10YR4/2			+	MSL - Me 2	н	HR - All h	ard rocks or stones (i.e. those w	hich cannot be scratched	with a finge	NON - Non-	calcarec-1	-11 3	a WCI	1 D	roughtiness	
2.223000				20	50	30	2.5Y6/3	CP - Cc7.5YR5/6		Yes	HCL - Clar 2	H	HR - All h	ard rocks or stones (i.e. those w	hich cannot be scratched	wi Moderat	NON - NYes	No		1.2.	ا ا	•	
							2.5Y6/3	CP - Cc10YR5/6		Yes	LMS - Loa 20			ard rocks or stones (i.e. those w									
				70	120	50	10YR5/5			No	MS - Med 50	Н	HR - All h	ard rocks or stones (i.e. those w	hich cannot be scratched	wi Moderat	NON - NNo	No					
SP 49100 12700 449100	0 212700 61	≤7	S				10YR4/2	CD CACAGE			SCL - San 2	H	HR - All h	ard rocks or stones (i.e. those w	hich cannot be scratched	with a finge	NON - Non-	calcarec 1	8 3	a WC II	2 D	roughtiness	
							2.5Y6/3 2.5Y6/3	CP - Cc10YR5/6 CP - Cc10YR5/6			HCL - Clar 2 SCL - San 10			ard rocks or stones (i.e. those ward rocks or stones (i.e. those w									
								Cr - Ct 101 N3/0		162	MS - Med 50			ard rocks or stones (i.e. those w ard rocks or stones (i.e. those w						- 1			
				70	120	50	10YR5/5		1	Nο	TIVID - IVIER 501					wil Moderati		INO					

		m) Slope	D Acna	ct Land use				Matrix	Ochreous Mottle		ey Textu	ire	Stones - type 1 Stones - type 2 Ped SUBS STR CaCO3 Mn C SPL Drought Wet	
NGR X	Y Ait (iii, isiope	Aspe	Lanu use	Тор	Bttm	Thick	Munsell colour	Form Munsell color	ur Form Munsell colour	ey rextt	"ie	> 2cm > 6cm Type % > 2cm > 6cm Type % > 2cm > 6cm Type Strength Size Shape Subs S1R CdCU3 MITC SFL MBw MBp Gd WC Gw Limits	tion 1 Limitation 2 Limitation 3 Grad
SP 48700 12600 44	19700 212600 61	≤7	ς		0	28	20	10YR4/2			MACI	- Me 2	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger (NON - Non-calcarec10 8 2 WC II 1 Droug	thtiness 2
3F 46700 12000 44	+8700 212000 01	2/	3					2.5Y6/3	CP - Cc10YR5/6	Ve	s HCL -		HR - All hard rocks or stones (i.e. those which cannot be scratched with a ringer in 1905 Normalized to 3 2 WC ii 1 Drough HR - All hard rocks or stones (i.e. those which cannot be scratched with dollars in Non - Nyes No	iuness
								10YR5/3	CD - C(10YR5/6		s MSL		HR - All hard rocks or stones (i.e. those which cannot be scratched wi Moderate NON - NNo No	
								10YR5/5		No		Med 10		
8 SP 48800 12600 44	18800 212600 60	≤7	S					10YR4/3	00 0 10/05/6			L-M2		thtiness Wetness 2
								2.5Y6/3 10YR5/5	CP - Cc10YR5/6		MS -		HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate NON - NYes HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate NON - NNo No	
					80	120	40	10113/3		INC	IVI3 -	IVIEU40	The "All hald locks of stolles (i.e. those which calling be schatched whitederate Non - into	
9 SP 48900 12600 44	18900 212600 60	≤7	S					10YR4/2				- Cla 2		thtiness 3a
								2.5Y6/3	CP - Cc10YR5/6		s HCL -		HR - All hard rocks or stones (i.e. those which cannot be scratched wi Moderate NON - NYes No	
								2.5Y6/3 7.5YR5/3	CP - Cc10YR5/6		SCL - MS -			
					ю	120	60	7.51K5/3		INC	IVIS -	iviet 40	rik - All nard rocks of stones (i.e. those which cannot be scratched will moderate in No in No.	
0 SP 49000 12600 44	19000 212600 61	≤7	S					10YR4/3			SCL -			htiness 3a
								2.5Y6/3	CP - Cc10YR5/6		s SCL -			
					70	120	50	10YR5/5		No	LMS -	- Loa 40	HR - All hard rocks or stones (i.e. those which cannot be scratched wi Moderate NON - NO No	
1 SP 49100 12600 44	19100 212600 62	≤7	S		0	25	25	10YR4/2			MCL ·	- Cla 2		htiness 3a
					25	35	10	10YR4/4		No	HCL -	Cla 2	HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate NON - NYes No	
								2.5Y6/3	CP - Cc10YR5/6	Ye			HR - All hard rocks or stones (i.e. those which cannot be scratched wi Moderate NON - NO No	
					55	120	65	10YR5/5		No	MS -	Med 20	HR - All hard rocks or stones (i.e. those which cannot be scratched wi Moderate NON - No No	
2 SP 48700 12500 44	18700 212500 61	≤7	ς		0	25	25	10YR4/3			MSI -	- Me 2	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger (NON - Non-calcarec-2 2 3a WC I 1 Droug	thtiness 3a
2 31 40700 12300 44	40700 212300 01		3					10YR5/4		No			HR - All hard rocks or stones (i.e. those which cannot be scratched will Moderate NON - Nor Calabete 2 2 3 8 WC 1 1	itiless 3a
								10YR6/4		No		San 2	HR - All hard rocks or stones (i.e. those which cannot be scratched wi Moderate NON - NYes No	
								10YR5/5		No		Med 50		
					_									
3 SP 48800 12500 44	18800 212500 60	≤7	S					10YR4/2 10YR6/3	CD - C(10YR5/6	Ye		- Me 2	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger NON - Non-calcarec-11 -19 3a WC 1 Droug HR - All hard rocks or stones (i.e. those which cannot be scratched will Moderate NON - NO NO NO	htiness 3a
								10YR5/5	CD - CITOTKS/0	No.		Mec 10		
						120		201113/3					The first feet of Assessment and the feet an	
					1									
SP 48900 12500 44	18900 212500 60	≤7	S					10YR4/3	00 045:	on o a suc !-		- Cla 2		thtiness Wetness 2
						55		10YR5/3	CD - C:10YR5/6	CD - C 2.5Y6/2 Ye			HR - All hard rocks or stones (i.e. those which cannot be scratched will Moderate NON - No	
						60 120		10YR5/3 10YR5/5	CD - C(10YR5/6	Ye No		San 10 Med 5	HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate NON - NNO HR - All hard rocks or stones (i.e. those which cannot be scratched wil Moderate NON - NNO NO	
					00	120	UU	101K2/2		INC.	IVIS -	iviedo	Fix - All little Tocks of Stones (i.e. those which cannot be scratched will moderate INON - NNO	
SP 49100 12500 44	19100 212500 62	≤7	S					10YR4/2				- Cla 2		htiness Wetness 2
								10YR4/4		No			HR - All hard rocks or stones (i.e. those which cannot be scratched wi Moderate NON - NYes No	
								2.5Y5/2	CP - Cc10YR5/6	Ye			HR - All hard rocks or stones (i.e. those which cannot be scratched wi Moderate NON - No No	
								10YR5/5 10YR5/5		No		- Me 10 Mec 20		
					/0	120	50	TO1K2/2			IVIS -	ivied 20	rix - All hard rocks of stones (i.e. those which cannot be scratched wilmoderate inon - Non-canno	
5 SP 48800 12400 44	18800 212400 61	≤7	S		0	25	25	10YR4/3			MSL -	- M∈2	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger (NON - Non-calcarec-14 - 17 3a WC I 1 Droug	htiness 3a
								10YR6/4		No			HR - All hard rocks or stones (i.e. those which cannot be scratched wi Moderate NON - NO No	
						60	10	10YR5/4		No	LMS -	- Loa 30	HR - All hard rocks or stones (i.e. those which cannot be scratched wi Moderate NON - NO No	
					60	120	60	10YR5/4		No	MS -	Med 40	HR - All hard rocks or stones (i.e. those which cannot be scratched wi Moderate NON - NO No	

Mottle form

FF - Few Faint

FD - Few Distinct

FP - Few Prominent

CF - Common Faint

CD - Common Distinct

CP - Common Prominent

MF - Many Faint

MD - Many Distinct

MP - Many Prominent

VF - Very many Faint

VD - Very many Distinct

VP - Very many Prominent

Texture

C - Clay

CHK - Chalk

CS - Coarse Sand

CSL - Coarse sandy loam

CSZL - Coarse sandy silt loam

FP - Fibrous and semifibrous peats

FS - Fine Sand

FSL - Fine sandy loam

FSZL - Fine sandy silt loam

HCL - Clay loam (heavy)

HP - Humified peats

HZCL - Silty clay loam (heavy)

IMP - Impenetrable to roots

LCS - Loamy Coarse Sand

LFS - Loamy fine sand

LMS - Loamy medium sand

LP - Loamy peats

MCL - Clay loam (medium)

MS - Medium Sand

MSL - Medium sandy loam

MSZL - Medium sandy silt loam

MZ - Marine Light Silts

MZCL - Silty clay loam (medium)

OC - Organic clays

OL - Organic loams

OS - Organic sands

PL - Peaty loams

PS - Peaty sands

SC - Sandy clay

SCL - Sandy clay loam

SP - Sandy peats

ZC - Silty clay

ZL - Silt loam

Stone Type

CH - Chalk or chalk stones

FSST - Soft fine grained sandstones

GH - Gravel with non-porous (hard) stones

GS - Gravel with porous stones (mainly soft stone types listed above)

HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail)

MSST - Soft, medium or coarse grained sandstones

SI - Soft 'weathered' igneous or metamorphic rocks or stones

SLST - Soft oolitic or dolomitic limestones

ZR - Soft, argillaceous or silty rocks or stones

Ped. Shape

SG - Single grain

GRA - Granular

SAB - Subangular Blocky

AB - Angular Blocky

PRIS - Prismatic PLAT - Platy

MASS - Massive

NA - N/A

Subsoil Structure Condition

Not Applicable

Good Moderate

Poor

Soil or Ped. Strength

Loose

Very friable Friable

Firm

Very firm

Extremely firm

Extremely hard

N/A

Calcareousness

NON - Non-calcareous (<0.5% CaCO3)

VSC - Very slightly calcareous (0.5 - 1% CaCO3)

SC - Slightly calcareous (1 - 5% CaCO3)

MC - Moderately calcareous (5 - 10% CaCO3)

VC - Very calcareous (>10% CaCO3)

arse

Ped. Size

F - Fine M - Medium C - Coarse

VF - Very Fine

VC - Very Coarse

NA - N/A

Degree of Ped. Development

W - Weak

M - Moderate

S - Strong

NA - Not applicable

Wetness Class

WC I

WC II

WC III

WC IV WC V

WC VI

ALC Grades

1

2

3a 3b

4

5

Non-Ag

Gley

None Gley

N/A

Appendix 2: Soil Pit Description

C888 Issue: 1 Askew Land & Soil Limited

Project			Location										D	Date					Surveyor	(s)			Company			
C888			Begbrook, O	xon, Area G									2	20-Feb-23					AR				Askew Lan	d and Soi	I	
Pit			WC		Grade]	Limitation(s	s)			Notes															
			l																							
1			11	_	1	1	Drought?			J	SCL USS not SF	'L														
Grid Ref			Altitude	Nearest	Topography						Flora									Weather and	conditions					
Square	East	North		point	Gradient	Aspect		Slope form		Surface	Culivation type	9	٧	Vegetation ty	pes					Temp	Sky	Wind		Precipita	ition	
	40400	42000		1.5440																						
SP	49102	13099	61	AB140	Level	N/A					Cereal stubble		С	cereal volunt	eers	5										
Horizon	Depth		Matrix			Gleying	<u> </u>		Mottle	es				ontent			Calc.	Mn C	Ped/soil	structure			Horizon bo	undary	Biopores	SPL
	Тор	Bttm	Texture	Colour	Munsell	Gley	Colour	Munsell	Form	Colour	Munsell	% Н	ı T	Гуре	S	Туре			Dev.	Size	Structure			Form		
1	0	22	MSZL		10YR4/2							4	H	HR			NC						clear	wavy		
2	22	55	SCL		2.5Y5/2				СР		10YR5/6	4	H	HR			NC	No	Mod	Coarse	Sun-angular blocky	Friable			>0.5%	No
																					ыоску				70.570	
																		<u> </u>								_
Pit		1	WC	7	Grade	Ī	Limitation(s	5)		1	Notes															
				_		_				J																
Grid Ref			Altitude	Nearest	Topography						Flora									Weather and	conditions					\neg
Square	East	North		point	Gradient	Aspect		Slope form		Surface	Culivation type	j	٧	Vegetation ty	pes	,				Temp	Sky	Wind		Precipita	ition	
			<u>l</u>	<u> </u>	1					<u>I</u>			_							<u> </u>	<u> </u>					
Horizon			Matrix			Gleying			Mottle			Ston	ne co	ontent			Calc.			structure			Horizon bo	undary	Biopores	SPL
			Texture	Colour	Munsell	Gley	Colour	Munsell	Form	Colour	Munsell	% Н	1 T	Гуре	S	Туре			Dev.	Size	Structure	Strength	Distinct	Form		Ш
	Auger	€																								
													Ī						-							

Project			Location										D	Date					Surveyor	(s)			Company			
C888			Begbroke, A	rea H									2	20-Feb-23					AR				Askew Lan	d and Soil	I	
Pit			WC		Grade	Ţ	Limitation(s	s)			Notes															
2			II		2		WW = drou	ght?]																
Grid Re	:		Altitude	Nearest	Topography						Flora									Weather and	conditions					_
Square	East	North	Aitituuc	point	Gradient	Aspect		Slope form		Surface	Culivation type		V	Vegetation ty	pes					Temp		Wind		Precipita	tion	_
SP	48900	12501		AB164	level	<u> </u>					stubble		C	cereal volunt	eers	3								Ь		
Horizon	Donth		Matrix			Gleying			Mottle			Cton		ontent			Icala	MnC	Ped/soil	atri inti ina			Horizon bo	aun dam.	Biopores	CDI
HORIZON	Top	Bttm	Texture	Colour	Munsell		Colour	Munsell		Colour		% H			ς	Туре	Caic.		Dev.	Size	Structure			Form	Biopores	SPL
1	0		MCL	Coloui	10YR4/3	Gicy	coloui	iviansen	101111	coloui	IVIGITSCII	2	. н	HR	,	Турс	NC		DCV.	SIZE	Structure	Strength	Distilict	101111		+
2	30	55	HCL (sandy)		10YR5/3			10YR5/6				5	Н	HR			NC	No	Mod		Sub angular	Friable	clear	wavy		No
						ļ						_	-							very coarse	blocky			<u> </u>	<0.5	
						7				1																
Pit		-	WC		Grade	4	Limitation(s	s)			Notes															
						<u>.l</u>				J																
Grid Re			Altitude	Nearest	Topography						Flora									Weather and	conditions					
Square	East	North		point	Gradient	Aspect		Slope form		Surface	Culivation type	!	V	√egetation ty	pes					Temp	Sky	Wind		Precipita	tion	
																					<u> </u>					
Horizon	Depth		Matrix			Gleying	,		Mottle	es		Ston	e cc	ontent			Calc.	Mn C	Ped/soil	structure			Horizon bo	oundary	Biopores	SPL
	Тор		Texture	Colour	Munsell		Colour	Munsell		Colour	Munsell	% H	1 T	Гуре	S	Туре	1		Dev.	Size	Structure		Distinct	Form		-
	Auger	€																								
	-								}			-					-							 		\vdash

Project			Location										Date					Surveyor	(s)			Company			
C888			Begbroke, O	xfordshire									20-Feb-2	3				RDM				Askew Lan	d and Soi		
Pit		1	WC		Grade	1	Limitation(s)		1	Notes														\neg
3		_	II		2						common root	to 60	cm												
C-:-I DI	:		A lata al a	Manage	T						Ir								haz	J Jisi					
Grid Ref Square		North	Altitude	Nearest point	Topography Gradient	Aspect		Slope form		Surface	Flora Culivation typ	۵.	Vegetatio	n tync	ıc				Weather and Temp	Sky	Wind		Precipita	tion	
Square	Last	NOILII		point	Gradient	Азресс		Siope form		Juliace	Cullvation typ		vegetatio	птурс	.5				теттр	JKY	vviiid		Гесіріка	tion	-
SP	484	130	62	F111									cereal stu	ıbble									dry		
	•		•					•												•					
Horizon			Matrix			Gleying		,	Mottle				e content			Calc.	Mn C	Ped/soil		,		Horizon bo		Biopores	SPL
	Тор		Texture	Colour	Munsell	Gley	Colour	Munsell	Form	Colour	Munsell	% H	Туре	S	Туре			Dev.	Size	Structure	Strength	Distinct	Form		
1	0	35	scl		10YR4/4							1	GH			non								>	
2	35	60	hcl		10YR5/4							5	GH					wk	m	ab	firm				
																							<u> </u>	>	
3	60	90	С		10YR5/3				cd		7.5YR5/6	10	GH					wk	С	ab				<	Υ
							•			•						_									
Pit			WC		Grade]	Limitation(s)			Notes														
		ا]															
Grid Ref	:		Altitude	Nearest	Topography						Flora								Weather and	d conditions					
Square		North	Aitituuc	point	Gradient	Aspect		Slope form		Surface	Culivation typ	e	Vegetatio	n type	!S				Temp	Sky	Wind		Precipita	tion	
											,		Ĭ						·						
																							<u> </u>		
Horizon			Matrix	Colour	Is do	Gleying		h 4	Mottle		Manage		content	l _c	T	Calc.	Mn C	Ped/soil		C+		Horizon bo	1	Biopores	SPL
	Тор	Bttm	Texture	colour	Munsell	Gley	Colour	Munsell	Form	Colour	Munsell	% H	Туре	5	Туре			Dev.	Size	Structure	Strength	DISTINCT	Form	-	\vdash
												Ħ													
				1				İ	1		1				1		l	I			1		1		

Soil Survey							Surveyor	RA
Easting (X)	447900	Northing (Y)	214000	Alt (m)	66		Grid Reference	SP 47900 14000
Land Use		Reference	6 (Pit 4)	Slope °	≤7			
Bedrock	Cornbrash Formation	Superficial	Summertown-radley	Aspect	NE		Date	05/09/2022
Lay	/er	Topsoil	2	3	4	5	6	7
Lower Depth (cm)	,	25	45	65	120		0	'
Texture			SCL - Sandy clay loam		MS - Medium San	d		
Matrix Colour		10YR3/2	10YR4/3	10YR4/4	10YE5/3	<u>. </u>		
Gley (Y/N)		No	No	No	No			
	Form							
Ochreous Mottles	Munsell Colour							
C. Martile	Form							
Grey Mottles	Munsell Colour							
Manganese (Y/N)		No	No	No	No			
% Stones (type 1)		8	10	12	80			
Stones > 2cm		4						
Stones > 6cm		0						
Stone Type		GH - Gravel with	GH - Gravel with non-poro	GH - Gravel with	GH - Gravel with r	on-porous	(hard) stones	
% Stones (type 2)								
Stones > 2cm								
Stones > 6cm								
Stone Type								
CaCO3			NON - Non-calcareous (<0			calcareous	(5 - 10% CaCO3)	
Shape of Peds.			SAB - Subangular Blocky		SG - Single grain			
Size of Peds.			M - Medium	C - Coarse	M - Medium			
Subsoil Structure			Moderate	Moderate	Poor			
Soil or Ped. Strength		Friable	Firm	Firm	Loose			
Degree of Ped. Deve	•	M - Moderate	M - Moderate	M - Moderate	M - Moderate			
Slowly Permeable L	ayer (Y/N)	No	No	No	No			

MDw	MDp	FCD
109	102	143

Wetness	Class (WC)	WC I
wethess	Grade (WE)	1

Notes

Soil Survey							Surveyor	RA
Easting (X)	447600	Northing (Y)	213600	Alt (m)	67		Grid Reference	SP 47600 13600
Land Use		Reference	32 (Pit 5)	Slope °	≤7			
Bedrock	Cornbrash Formation	Superficial	Summertown-radley	Aspect	N/A		Date	05/09/2022
Lay	ver	Topsoil	2	3	4	5	6	7
Lower Depth (cm)	/Cl	35	45	120	-	, ,	 	,
Texture		SCL - Sandy clay		C - Clay				†
Matrix Colour		10YR4/4	10YR4/6	c c.u.y				
Gley (Y/N)		No	No					
	Form							
Ochreous Mottles	Munsell Colour							
	Form							
Grey Mottles	Munsell Colour							
Manganese (Y/N)	•	No	No					
% Stones (type 1)		4	10	80				
Stones > 2cm								
Stones > 6cm								
Stone Type		GH - Gravel with	GH - Gravel with non-pore	GH - Gravel with	non-porous (hard) stones		
% Stones (type 2)								
Stones > 2cm								
Stones > 6cm								
Stone Type								
CaCO3			VC - Very calcareous (>10	% CaCO3)				
Shape of Peds.			AB - Angular Blocky	AB - Angular Blo	cky			
Size of Peds.		_	M - Medium	C - Coarse				
Subsoil Structure		Not Applicable	Moderate	Poor				
Soil or Ped. Strength		Firm	Firm	Firm				
Degree of Ped. Deve	•	M - Moderate	M - Moderate	M - Moderate				
Slowly Permeable L	ayer (Y/N)	No	No	No				

MDw	MDp	FCD
108	101	143

Wetness	Class (WC)	WC I
wethess	Grade (WE)	1

Notes	
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Appendix 3:

Topsoil Particle Size Distribution (PSD)

C888 Issue: 1 Askew Land & Soil Limited



ISSUED BY SOIL PROPERTY TESTING LTD

DATE ISSUED: 16/02/2023

		Begbroke Oxon					
		42147_1					
-11							
Client:	Askew La	and and Soil Ltd	Soil Property Testing Ltd				
	The Old S Upexe	tables	15, 16, 18 Halcyon Court, St Margaret's Way, Stukeley Meadows, Huntingdon,				
	Exeter EX5 5ND		Cambridgeshire, PE29 6DG				
	LX3 314D		Tel: 01480 455579 Email: enquiries@soilpropertytesting.com				
			Website: www.soilpropertytesting.com				
amples	Submitte	d By:	Approved Signatories:				
	Askew La	and Soil Ltd	✓ J.C. Garner B.Eng (Hons) FGS				
			Technical Director & Quality Manager				
Samples	Labelled:						
	Begbrok	e Oxon	□ W. Johnstone				
			Materials Lab Manager				
			Ill-				
Date R	eceived:	10/02/2023	Samples Tested Between: 10/02/2023 and 16/02/2023				
Remarks							
		ttention of Robert A	Askew				
	Your Ref	erence No: C888					
Notes:	1	All remaining samples unless we are notified	or remnants from this contract will be disposed of after 21 days from today, to the contrary.				
	2	2 Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.					
	3	Tests marked "NOT UK Schedule for this testin	KAS ACCREDITED" in this test report are not included in the UKAS Accreditation ng laboratory.				
	4	This test report may no issuing laboratory.	ot be reproduced other than in full except with the prior written approval of the				



ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 16/02/2023



998

Contra	act		Begbro	ke C	Охо	n											
Serial	No.		42147_	1									T	arg	et D	ate	24/02/2023
Sched	uled I	Ву	Askew	Land	d ar	ıd So	il Lt	td									
Sched	ule R	emarks															
Bore Hole No.	Туре	Sample Ref.	Top Depth	\dsi	ditide di di	July Distri	Dution	185137									Sample Remarks
TP	Α	16	0.00	1													
TP	В	32	0.00	1													
TP	С	49	0.00	1													
TP	D	74	0.00	1													
TP	Е	93	0.00	1													
TP	F	106	0.00	1													
TP	Н	158	0.00	1													
		Totals		7													End of Schedule



ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 16/02/2023

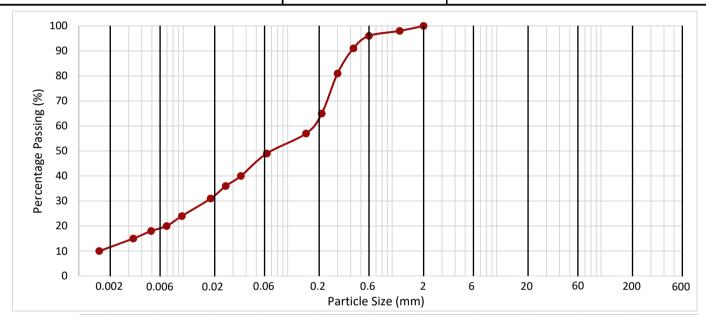


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Contract Begbroke Oxon
Serial No. 42147_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION Sample Borehole / Depth Description Remarks Pit No. Reference (m) Type Dark yellowish brown slightly gravelly sandy CLAY/SILT with occasional 0.00 -ΤP F 106 recently active roots. Gravel is fine to medium angular to sub angular chert Material >2mm removed from test. 0.25 and ironstone.

Method of Test: Hydrometer + Pre-sieve | Method of Pretreatment: Not required



CLAV	Fine Medium Coarse			Fine Medium Coarse			Fine Medium Coarse			COBBLES	BOULDERS
CLAY		SILT			SAND			GRAVEL		COBBLES	BOULDER3

Н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d	0.0356	40	
r	0.0255	36	38
О	0.0183	31	
m	0.0097	24	Clay by
e t	0.0069	20	Dry Mass
ι e	0.0049	18	(%)
r	0.0033	15	
	0.0016	10	11

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	100	
1.18	98	
0.600	96	
0.425	91	51
0.300	81	31
0.212	65	
0.150	57	
0.063	49	

Fines By Dry Mas	ss (%)
<0.063mm	49

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50		
37.5		0
28		U
20		
14		
10		
6.3		
5		

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2,9.5

Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter



ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 16/02/2023

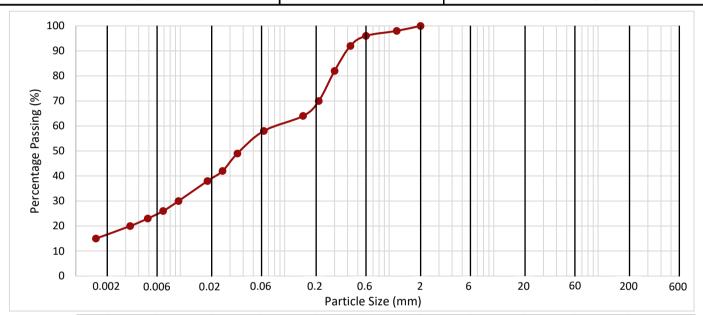


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Contract	Begbroke Oxon
Serial No.	42147_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION Sample Borehole / Depth Description Remarks Pit No. Reference (m) Type 0.00 -Brown slightly gravelly sandy CLAY/SILT with occasional recently active ΤP Н 158 Material >2mm removed from test. roots. Gravel is fine to medium angular to sub angular chert. 0.25

Method of Test: Hydrometer + Pre-sieve | Method of Pretreatment: Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT		SAND		GRAVEL			COBBLES	POOLDEK3		

Н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d	0.0352	49	
r	0.0254	42	42
О	0.0182	38	
m	0.0096	30	Clay by
e t	0.0069	26	Dry Mass
ι e	0.0049	23	(%)
r	0.0033	20	
	0.0016	15	16

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	100	
1.18	98	
0.600	96	
0.425	92	42
0.300	82	42
0.212	70	
0.150	64	
0.063	58	
0.150	64	

Fines By Dry Mass (%)						
<0.063mm	58					

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50		
37.5		0
28		J
20		
14		
10		
6.3		
5		

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5

Method of test: BS1377: Part 2: 1990: 9.2,9.5

Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter



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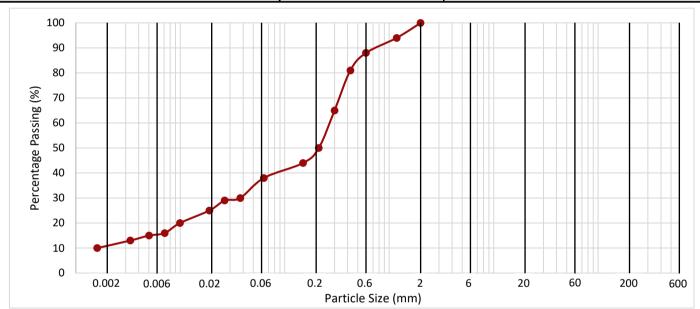


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Contract B	Begbroke Oxon
Serial No. 4	42147_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION Sample Borehole / Depth Description Remarks Pit No. Reference (m) Type 0.00 -Dark yellowish brown clayey silty SAND with occasional recently active ΤP Α 16 Material >2mm removed from test. roots. Gravel is fine to medium angular chert. 0.25

Method of Test: Hydrometer + Pre-sieve Method of Pretreatment: Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
CLAT		SILT			SAND			GRAVEL		COBBLES	BOULDER3

Н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d	0.0375	30	
r	0.0266	29	28
О	0.0190	25	
m	0.0099	20	Clay by
e	0.0071	16	Dry Mass
t e	0.0050	15	(%)
r	0.0033	13	
	0.0016	10	10

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	100	
1.18	94	
0.600	88	
0.425	81	62
0.300	65	02
0.212	50	
0.150	44	
0.063	38	

Fines By Dry Mas	ss (%)
<0.063mm	38

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50		
37.5		0
28		U
20		
14		
10		
6.3		
5		

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2,9.5

Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter



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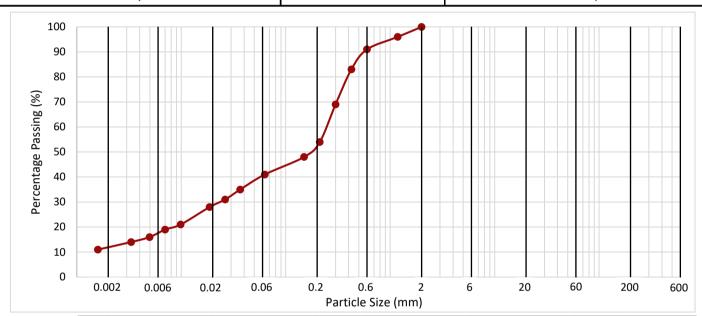


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Contract	Begbroke Oxon
Serial No.	42147_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION Sample Borehole / Depth Description Remarks Pit No. Reference (m) Type 0.00 -Dark yellowish brown slightly gravelly sandy CLAY/SILT with rare recently ΤP В 32 Material >2mm removed from test. active roots. Gravel is fine to medium angular chert. 0.25

Method of Test: Hydrometer + Pre-sieve | Method of Pretreatment: | Not required



CLAV	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
CLAY		SILT			SAND			GRAVEL		COBBLES	BOULDER3

Н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d	0.0367	35	
r	0.0263	31	29
О	0.0187	28	
m	0.0099	21	Clay by
e t	0.0070	19	Dry Mass
ι e	0.0050	16	(%)
r	0.0033	14	
	0.0016	11	12

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	100	
1.18	96	
0.600	91	
0.425	83	59
0.300	69	39
0.212	54	
0.150	48	
0.063	41	

Fines By Dry Mas	ss (%)
<0.063mm	41

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50		
37.5		0
28		U
20		
14		
10		
6.3		
5		

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5

Method of test: BS1377: Part 2: 1990: 9.2,9.5

Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter



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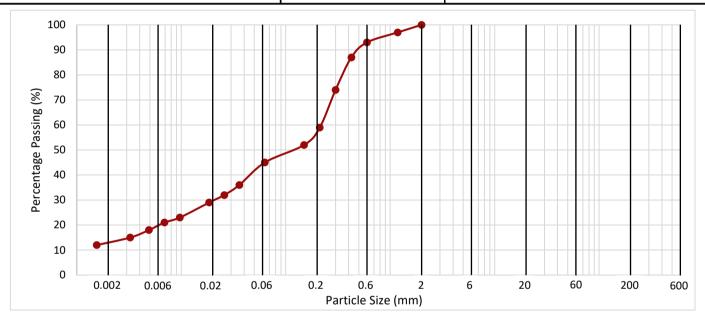
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Contract	Begbroke Oxon
Serial No.	42147_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION Sample Borehole / Depth Description Remarks Pit No. Reference (m) Type Dark yellowish brown slightly gravelly sandy CLAY/SILT with occasional 0.00 -ΤP C 49 recently active roots. Gravel is fine to medium angular to sub angular chert Material >2mm removed from test. 0.25 and ironstone.

Method of Test: Hydrometer + Pre-sieve | Method of Pretreatment: Not required



CLAV	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
CLAY		SILT			SAND			GRAVEL		COBBLES	BOULDER3

Н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d	0.0360	36	
r	0.0258	32	32
О	0.0185	29	
m	0.0097	23	Clay by
e	0.0069	21	Dry Mass
t e	0.0049	18	(%)
r	0.0033	15	
	0.0016	12	13

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	100	
1.18	97	
0.600	93	
0.425	87	55
0.300	74	33
0.212	59	
0.150	52	
0.063	45	

Fines By Dry Mass (%)						
<0.063mm	45					

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50		
37.5		0
28		U
20		
14		
10		
6.3		
5		

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2,9.5

Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter



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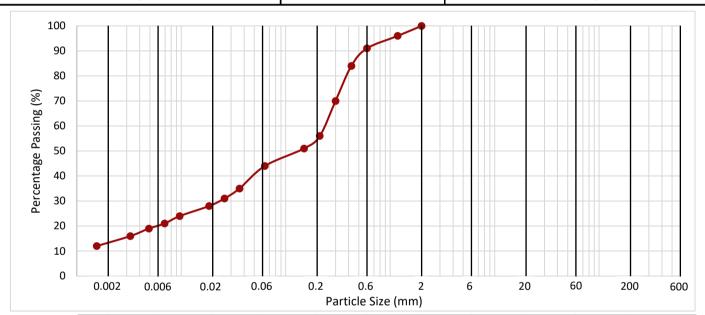


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Contract	Begbroke Oxon
Serial No.	42147_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION Sample Borehole / Depth Description Remarks Pit No. Reference (m) Type Dark yellowish brown slightly gravelly sandy CLAY/SILT with occasional 0.00 -ΤP D 74 recently active roots. Gravel is fine to medium angular to sub angular chert Material >2mm removed from test. 0.25 and ironstone.

Method of Test: Hydrometer + Pre-sieve | Method of Pretreatment: | Not required



CLAV	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	CORRIEC	BOULDERS
CLAY		SILT			SAND			GRAVEL		COBBLES	BOOLDERS

Н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d	0.0361	35	
r	0.0259	31	31
О	0.0185	28	
m	0.0097	24	Clay by
e t	0.0069	21	Dry Mass
ι e	0.0049	19	(%)
r	0.0033	16	
	0.0016	12	13

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	100	
1.18	96	
0.600	91	
0.425	84	56
0.300	70	30
0.212	56	
0.150	51	
0.063	44	

Fines By Dry Mas	ss (%)
<0.063mm	44

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50		
37.5		0
28		U
20		
14		
10		
6.3		
5		

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2,9.5

Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter



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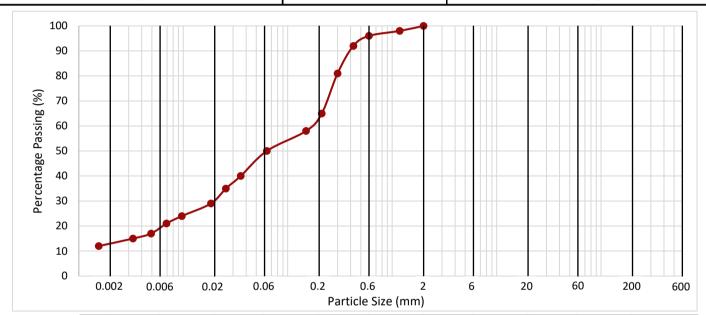
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DATE 1330LD. 10/02/2023

Contract	Begbroke Oxon
Serial No.	42147_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION Sample Borehole / Depth Description Remarks Pit No. Reference (m) Type Yellowish brown slightly gravelly sandy CLAY/SILT with frequent recently 0.00 -ΤP Ε 93 active roots. Gravel is fine to medium angular to sub angular chert and Material >2mm removed from test. 0.25 ironstone.

Method of Test: Hydrometer + Pre-sieve | Method of Pretreatment: | Not required



CLAV	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
CLAY		SILT			SAND			GRAVEL		COBBLES	POOLDEK3

Н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d	0.0355	40	
r	0.0256	35	37
О	0.0184	29	
m	0.0097	24	Clay by
e	0.0069	21	Dry Mass
t e	0.0049	17	(%)
r	0.0033	15	
	0.0016	12	13

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	100	
1.18	98	
0.600	96	
0.425	92	50
0.300	81	30
0.212	65	
0.150	58	
0.063	50	

Fines By Dry Mass (%)							
<0.063mm	50						

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50		
37.5		0
28		U
20		
14		
10		
6.3		
5		

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5 Method of test: BS1377: Part 2: 1990: 9.2,9.5

Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter



ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 17/02/2023



Contract		Begbrook							
Serial No).	42179_1							
Client:	Askew La	nd and Soil Ltd	Soil Property Testing Ltd						
	The Old St Upexe Exeter	rables	15, 16, 18 Halcyon Court, St Margaret's Way, Stukeley Meadows, Huntingdon, Cambridgeshire, PE29 6DG						
	EX5 5ND		Tel: 01480 455579 Email: enquiries@soilpropertytesting.com Website: www.soilpropertytesting.com						
Samples	Submitted	•	Approved Signatories:						
	Askew La	nd and Soil Ltd	✓ J.C. Garner B.Eng (Hons) FGS						
			Technical Director & Quality Manager						
Samples	Labelled:		Tooming and the second of the						
	Begbrook	(☐ W. Johnstone						
			Materials Lab Manager						
			Ill-						
Date R	eceived:	15/02/2023	Samples Tested Between: 15/02/2023 and 17/02/2023						
Remarks	:								
		ttention of Robert A	skew						
	Your Refe	erence No: C888							
Notes:	1	All remaining samples of unless we are notified t	r remnants from this contract will be disposed of after 21 days from today, o the contrary.						
	2	Opinions and interpreta	ations expressed herein are outside the scope of UKAS accreditation.						
	3	Tests marked "NOT UKAS ACCREDITED" in this test report are not included in the UKAS Accreditation Schedule for this testing laboratory.							
	4	This test report may no issuing laboratory.	t be reproduced other than in full except with the prior written approval of the						
	5	The results within this r	eport only relate to the items tested or sampled.						



ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 17/02/2023



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Contra	act		Begbrook														
Serial	No.		42179_	1									-	Гarg	et D	ate	01/03/2023
Sched	uled I	Ву	Askew	Land a	nd S	oil L	.td										
Sched	ule R	emarks															
Bore Hole No.	Type Sample Top Ref. Denth										Sample Remarks						
TP	AB	G130	0.00	1													
TP	AB	G139	0.00	1													
		Totals		2													End of Schedule



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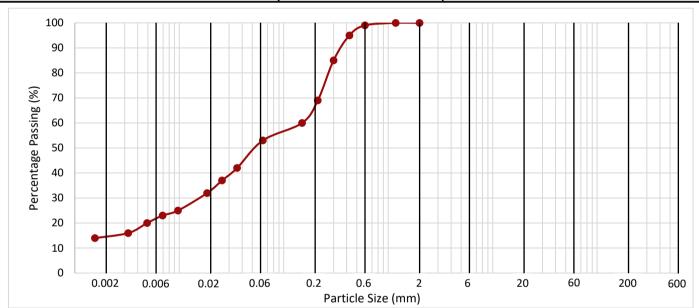


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Contract	Begbrook
Serial No.	42179_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION Sample Borehole / Depth Description Remarks Pit No. Reference (m) Type 0.00 -Dark yellowish brown sandy CLAY/SILT with rare gravel and occasional ΤP ΑB G130 Material >2mm removed from test. recently active roots. 0.25

Method of Test: Hydrometer + Pre-sieve Method of Pretreatment: Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
CLAY		SILT		SAND				GRAVEL		COBBLES	BOULDER3

Н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d	0.0358	42	
r	0.0257	37	38
О	0.0185	32	
m	0.0097	25	Clay by
e t	0.0069	23	Dry Mass
e e	0.0049	20	(%)
r	0.0033	16	
	0.0016	14	15

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	100	
1.18	100	
0.600	99	
0.425	95	47
0.300	85	4/
0.212	69	
0.150	60	
0.063	53	

Fines By Dry Mass (%)								
<0.063mm	53							

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50		
37.5		0
28		U
20		
14		
10		
6.3		
5		

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5

Method of test: BS1377: Part 2: 1990: 9.2,9.5

Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter



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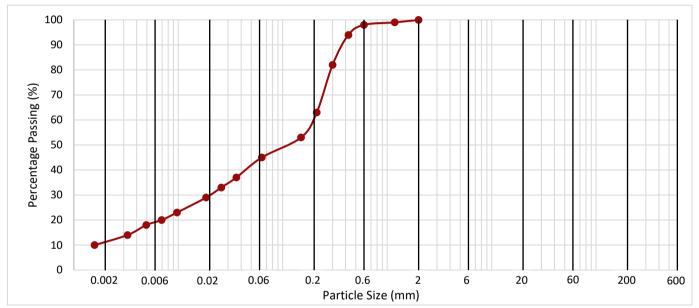


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Contract	Begbrook
Serial No.	42179_1

DETERMINATION OF PARTICLE SIZE DISTRIBUTION Sample Borehole / Depth Description Remarks Pit No. Reference (m) Type 0.00 -Dark yellowish brown sandy CLAY/SILT with rare gravel and rare recently ΤP ΑB G139 Material >2mm removed from test. active roots. 0.25

Method of Test: Hydrometer + Pre-sieve Method of Pretreatment: Not required



CLAV	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
CLAY		SILT			SAND			GRAVEL		COBBLES	BOOLDERS

Н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d	0.0360	37	
r	0.0258	33	34
О	0.0185	29	
m	0.0097	23	Clay by
e	0.0069	20	Dry Mass
t e	0.0049	18	(%)
r	0.0033	14	
	0.0016	10	11

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	100	
1.18	99	
0.600	98	
0.425	94	55
0.300	82	33
0.212	63	
0.150	53	
0.063	45	

Fines By Dry Mas	ss (%)
<0.063mm	45

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50		
37.5		0
28		J
20		
14		
10		
6.3		
5		

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5 Method of test: BS1377: Part 2: 1990: 9.2,9.5

Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter



ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 01/03/2023



Contract		Begbrook				
Serial No.		42179_2				
Client:	Askew La	nd and Soil Ltd	Soil Property Testing Ltd			
	The Old St Upexe Exeter	rables	15, 16, 18 Halcyon Court, St Margaret's Way, Stukeley Meadows, Huntingdon, Cambridgeshire, PE29 6DG			
	EX5 5ND		Tel: 01480 455579 Email: enquiries@soilpropertytesting.com Website: www.soilpropertytesting.com			
Samples S	Submitted	d By:	Approved Signatories:			
	Askew La	nd and Soil Ltd	✓ J.C. Garner B.Eng (Hons) FGS			
			Technical Director & Quality Manager			
Samples I		_				
Begbrook			☐ W. Johnstone			
			Materials Lab Manager			
			The			
Date Re	eceived:	15/02/2023	Samples Tested Between: 15/02/2023 and 01/03/2023			
Remarks:	For the a	ttention of Robert A erence No: C888	Askew			
Notes:	All remaining samples or remnants from this contract will be disposed of after 21 days from today, unless we are notified to the contrary.					
	2	Opinions and interpret	ations expressed herein are outside the scope of UKAS accreditation.			
	3	Tests marked "NOT UK Schedule for this testin	AS ACCREDITED" in this test report are not included in the UKAS Accreditation g laboratory.			
	4	This test report may no issuing laboratory.	ot be reproduced other than in full except with the prior written approval of the			
	5	The results within this	report only relate to the items tested or sampled.			



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Contra	act		Begbro	Begbrook													
Serial	No.		42179_	2									Tar	get I	Dat	e	08/03/2023
Sched	uled I	Ву	Askew	Land a	nd S	oil L	td										
Sched	ule R	emarks															
Bore Hole No.	Туре	Sample Ref.	Top Depth	23/11/1	z ju die	idutio	18337										Sample Remarks
TP	Α	13	0.00	1													
TP	F	111	0.00	1													
		Totals		2													End of Schedule



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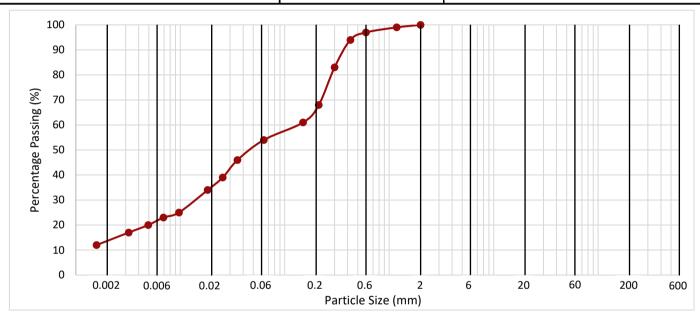


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Serial No. 42179_2	Contract	Begbrook
	Serial No.	

DETERMINATION OF PARTICLE SIZE DISTRIBUTION Sample Borehole / Depth Description Remarks Pit No. Reference (m) Type Yellowish brown slightly gravelly sandy silty CLAY with occasional recently 0.00 -Material greater than 2mm removed ΤP F 111 active roots. Gravel is fine and medium angular to subrounded limestone before test 0.25 and ironstone

Method of Test: Hydrometer + Pre-sieve | Method of Pretreatment: Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOLII DERS
CLAT	SILT			SAND			GRAVEL			COBBLES	BOULDERS

Н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d	0.0353	46	
r	0.0255	39	41
О	0.0183	34	
m	0.0097	25	Clay by
e t	0.0069	23	Dry Mass
ι e	0.0049	20	(%)
r	0.0032	17	
	0.0016	12	13

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	100	
1.18	99	
0.600	97	
0.425	94	46
0.300	83	40
0.212	68	
0.150	61	
0.063	54	

Fines By Dry Mas	ss (%)
<0.063mm	54

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50		
37.5		0
28		J
20		
14		
10		
6.3		
5		

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2,9.5

Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter



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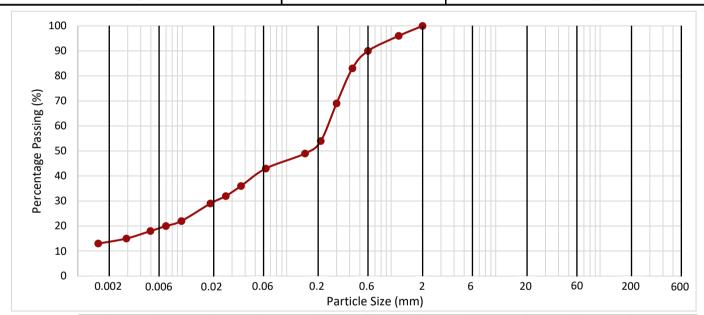


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Contract	Begbrook
Serial No.	42179_2

DETERMINATION OF PARTICLE SIZE DISTRIBUTION Sample Borehole / Depth Description Remarks Pit No. Reference (m) Type Yellowish brown slightly gravelly sandy silty CLAY with occasional recently 0.00 -Material greater than 2mm removed ΤP Α 13 active roots. Gravel is fine and medium angular to subrounded chert, before test 0.25 sandstone and ironstone

Method of Test: Hydrometer + Pre-sieve | Method of Pretreatment: Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT		SAND		GRAVEL		COBBLES	BOULDERS			

н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d	0.0365	36	
r	0.0261	32	30
О	0.0186	29	
m	0.0098	22	Clay by
e t	0.0070	20	Dry Mass
l e	0.0050	18	(%)
r	0.0029	15	
	0.0016	13	13

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	100	
1.18	96	
0.600	90	
0.425	83	57
0.300	69	37
0.212	54	
0.150	49	
0.063	43	

Fines By Dry Mass (%)			
<0.063mm	43		

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50		
37.5		0
28		U
20		
14		
10		
6.3		
5		

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5 Method of test: BS1377: Part 2: 1990: 9.2,9.5

Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter

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² Natural England (2022) 'Guide to assessing development proposals on agricultural land'. Available online at https://www.gov.uk/government/publications/agricultural-land-assess-proposals-for-development/guide-to-assessing-development-proposals-on-agricultural-land Last accessed May 2023

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