

# AGRICULTURAL LAND CLASSIFICATION

August 2021





## LAND AT RAGLAN ENTERPRISE PARK

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#### 1 INTRODUCTION

#### **Purpose**

1.1 This report sets out the results of a survey to determine the quality of a parcel of land at the Raglan Enterprise Park, south of Raglan.

#### The Site

1.2 The Site comprises three small fields in grassland uses. The site extends to 12.8 ha. It is shown outlined in red below.





#### **This Report**

- 1.3 This report is structured as follows:
  - (i) section 2 examines the planning policy of relevance to the non-agricultural development of agricultural land;
  - (ii) section 3 describes the considerations relevant to the agricultural land classification (ALC) system;
  - (iii) with the ALC described in section 4.

#### The Author

1.4 The report has been prepared by Kernon Countryside Consultants Ltd (KCC). KCC is a specialist consultancy advising farmers, developers and local authorities on agricultural land quality, farm business, diversification and development proposals. We are familiar with many different types of agricultural, horticultural and equine enterprises, and many forms of rural economic diversification, and the planning policy governing such enterprises.

1.5 The survey was carried out by a Chartered Scientist (CSci), who is a Fellow (F. I. Soil Sci) of the British Society of Soil Science (BSSS). In addition, this ALC survey has been carried out by a soil scientist who 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'. The BSSS Professional Competency Scheme is endorsed by, amongst others, the Welsh Government, the Science Council, and the Institute of Environmental Assessment and Management (IEMA)).

<sup>1</sup> British Society of Soil Science. Professional Competency Scheme Document 2 'Agricultural Land Classification of England and Wales'. Available online @ <a href="https://www.soils.org.uk/sites/default/files/events/flyers/ipss-competency-doc2.pdf">https://www.soils.org.uk/sites/default/files/events/flyers/ipss-competency-doc2.pdf</a> Last accessed July 2020

#### 2 PLANNING POLICY OF RELEVANCE

#### **Planning Policy Wales**

- 2.1 Planning Policy Wales (Edition 11, February 2021) paragraph 3.58 identifies land of Grades1, 2 and 3a in the Agricultural Land Classification as the best and most versatile.
- 2.2 Paragraph 3.59 notes that when considering the search sequence and in development plan policies and development management decisions, considerable weight should be given to protecting such land from development. Such land should only be developed if there is an overriding need for the development and either previously developed land or land in lower grades is not available, or has an environmental value that outweighs the agricultural considerations. If such land does need to be developed, development should be directed to land of the lowest grade.

#### **Local Plan**

2.3 The Monmouthshire Local Development Plan 2011 – 2021 was adopted in February 2014. There is no specific policy relating to agricultural land within the LDP.

#### 3 CONSIDERATIONS OF THE AGRICULTURAL LAND CLASSIFICATION

- 3.1 This assessment is based upon the findings of a study of published information on climate, geology and soil in combination with a soil investigation carried out in accordance with the Ministry of Agriculture, Fisheries and Food (MAFF) <sup>2</sup> 'Agricultural Land Classification of England and Wales: Revised Guidelines and Criteria for Grading the Quality of Agricultural Land, October 1988 (henceforth referred to as the 'the ALC Guidelines').
- 3.2 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'.
- 3.3 A detailed ALC survey was carried out on the 24<sup>th</sup> June 2020. The survey involved examination of the soil's physical properties at 13 auger bore locations on a 100m by 100m grid (i.e. one auger bore per ha). The auger locations of the detailed soil survey are shown on Plan KCC2862/REP01. One soil pit (Pit 1) was excavated with a spade to examine certain soil physical properties, such as stone content and subsoil structure, in more detail. A sample of topsoil was collected at two locations, i.e. 4 and 10, as shown on Plan KCC2862/REP01. 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.
- 3.4 The sample 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.
- 3.5 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 5 cm diameter Dutch (Edleman) soil auger. 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). Each soil profile was ascribed a grade following the ALC Guidelines.

5

<sup>&</sup>lt;sup>2</sup> The Ministry of Agriculture, Fisheries and Food (MAFF) was incorporated within the Department for Environment, Food and Rural Affairs (Defra) in June 2001

<sup>&</sup>lt;sup>3</sup> Planning Policy and Guidance: National Policy. Available online @ <a href="https://gov.wales/planning-policy-and-guidance-national-policy">https://gov.wales/planning-policy-and-guidance-national-policy</a>

- 3.6 As described in the ALC Guidelines, the main physical factors influencing agricultural land quality are:
  - climate;
  - site;
  - soil; and
  - interactive limitations.

#### Climate

3.7 Interpolated climate data relevant to the determination of the ALC grade of land at the Site is given in Table 1 below.

Table 1: ALC Climate Data for Raglan Enterprise Park, Monmouthshire

Climate Parameter	Grid Ref: SO412070
Average Altitude (m)	53
Average Annual Rainfall (mm)	989
Accumulated Temperature above 0°C (January – June)	1478
Moisture Deficit (mm) Wheat	96
Moisture Deficit (mm) Potatoes	86
Field Capacity Days (FCD)	207
Grade according to climate	1

- 3.8 With reference to Figure 1 'Grade according to climate' on page 6 of the ALC Guidelines, the quality of agricultural land at the Site is not limited by climate and has been determined as Grade 1.
- 3.9 Due to the average annual rainfall, agricultural land at the Site is predicted to be at field capacity (i.e. near saturation point) for approximately 207 days per year, mainly over the late autumn, winter and early spring. Moisture Deficit (MD) values range between approximately 96mm for wheat, and 86mm for potatoes. The average annual rainfall for Raglant is high at 989mm per year. These climate factors, in combination with topsoil texture, cause 'interactive limitations' to agricultural land quality at the Site namely soil wetness (see below).

#### <u>Site</u>

3.10 The Site is located to the south of Raglan, Wales. The approximate centre of the Site is located at British National Grid (BNG) reference SO 41200 06981. The Site is mainly bordered by urban development at Raglan, and a stream (Nant y Wilcae) to the north, Chepstow Road to the east, and agricultural land to the south and west.

- 3.11 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.

#### **Gradient and Micro-Relief**

- 3.12 The Site is located on an east facing slope, with the highest elevation of approximately 54 meters (m) Above Ordnance Datum (AOD) is in the northwest. The lowest point occurs in the southeast, at an elevation of approximately 40m AOD. The quality of agricultural land over the Site is not limited by gradient as the angle of slope does not exceed 7°.
- 3.13 No part of the Site is limited by micro-relief (i.e. complex changes in slope angle and direction over short distances).

#### Risk of Flooding

3.14 From Natural Resources Wales<sup>3</sup>, land at the Site has no risk of flooding. The quality of agricultural land is not limited by flood risk, re Table 2 '*Grade according to flood risk in summer*' and Table 3 '*Grade according to flood risk in winter*' of the ALC Guidelines.

#### <u>Soil</u>

- 3.15 Geology/Soil Parent Material. From British Geological Survey (BGS) maps at 1:50,000 scale, the Site is underlain by Raglan Mudstone Formation (siltstone and mudstone, interbedded).
- 3.16 The BGS 1:50,000 information indicates that much of the bedrock is not overlain by superficial deposits.
- 3.17 **Published Information on Soil.** Soil information is available only at a small scale (1:250,000) on the National Soil Map published by the Soil Survey of England and Wales (SSEW) in 1983. This provisional soil map indicates that land at the Site is covered by soils grouped in the Milford Association.
- 3.18 As described by the SSEW, the Milford Association is mapped over 1,345 km² of the Old Red Sandstone outcrop in south Wales, the Welsh Borderland, Devon and Somerset. It consists mainly of reddish fine loamy typical brown earths on interbedded siltstone,

<sup>&</sup>lt;sup>3</sup> <a href="https://naturalresources.wales/evidence-and-data/maps/long-term-flood-risk">https://naturalresources.wales/evidence-and-data/maps/long-term-flood-risk</a>, Natural Resources Wales, 2020. Last accessed September 2020

sandstone and mudstone, on gently sloping arable lowland in south-west Dyfed to steep slopes up to around 400 m A O.D. In the Milford series, the topsoil and subsoil are a reddish brown stony clay loam with granular or fine subangular blocky structure over very stony Head or bedrock at 40 to 80 cm depth. Soils in thick drift occupy a small part of the association usually on footslopes. These are either well drained typical brown earths (Newbiggin series) or stagnogleyic brown earths (Llangendeirne series) which are subject to periodic waterlogging and have some subsoil gleying. The soils are generally well drained (Wetness Class I) and readily absorb winter rain which passes into the underlying permeable Head, though locally there is some surface run-off on steep slopes.

- 3.19 **Soil Survey.** The detailed soil survey carried out on the 24<sup>th</sup> June 2020 determined soils which are consistent with the description of Milford Association, although more akin to stagnogleyic Llangendeitne soils. The brown (Munsell colour 7.5YR4/3) to reddish brown (5YR 4/3) medium silty clay loam soils overlie slowly permeable and gleyed clay in the lower subsoil (Wetness Class II to III). There is one well drained soil profile in Wetness Class I, i.e. auger bore 6.
- 3.20 A log of all the soil profiles recorded on Site is given as Appendix KCC1. One soil pit (Pit 1) was excavated with a spade to examine certain soil physical properties, such as subsoil structure, in more detail. A description of the soil pit is given at the end of Appendix KCC1.
- 3.21 In order to substantiate topsoil texture determined during the ALC survey by hand-texturing, two samples of topsoil were collected over the Site (i.e. auger locations 4 and 10). The topsoil samples were 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 KCC2**. The findings of the PSD analysis are shown in Table 2 below.

Table 2: Topsoil Texture (re Table 10, ALC Guidelines)

Topsoil Sample Location (See KCC2862/REP01)	% sand 0.063-2.0 mm	% silt 0.002- 0.063 mm	% clay <0.002 mm	ALC Soil Texture Class
4	12	63	24	Medium Silty Clay Loam
10	11	69	20	Medium Silty Clay Loam

3.22 From the information above, together with the findings of the detailed soil survey (see Soil Profile Log given as **Appendix KCC1**), it has been determined that the quality of agricultural land over the whole Site is limited mainly by an interactive limitation of soil wetness, as described below.

#### **Interactive Limitations**

3.23 **Soil Wetness.** 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 is limited by soil wetness as per Table 3 below (based on Table 6 'Grade According to Soil Wetness – Mineral Soils' in the ALC Guidelines).

Table 3: Predicted ALC Grade According to Soil Wetness

Wetness Class	Texture of the Top 25 cm	176-225 Field Capacity Days
I	Sandy Loam, Sandy Silt Loam Medium Silty Clay Loam, Medium Clay Loam*, Sandy Clay Loam Heavy Silty Clay Loam**, Heavy Clay Loam** Clay, Silty Clay	1 2 3a 3b
II	Sandy Loam, Sandy Silt Loam  Medium Silty Clay Loam, Medium Clay Loam*, Sandy Clay Loam  Heavy Silty Clay Loam**, Heavy Clay Loam**  Clay, Silty Clay	2 3a 3a 3b
	Sandy Loam, Sandy Silt Loam  Medium Silty Clay Loam, Medium Clay Loam*, Sandy Clay Loam  Heavy Silty Clay Loam**, Heavy Clay Loam**  Clay, Silty Clay  clay; and ** >27% clay	3a 3a 3b 4

3.24 In a climate are with 207 FCD, soil profiles with medium silty clay loam topsoil are limited by soil wetness to Subgrade 3a where the subsoil is slightly seasonally waterlogged (Wetness Class II), and where the subsoil is slowly permeable and seasonally waterlogged (Wetness Class III). A single, well drained soil profile (i.e., auger bore 6) in Wetness Class I is limited by soil wetness to Grade 2.

#### **Predicted ALC**

3.25 The Welsh Government's predictive ALC map<sup>4</sup> online indicates that agricultural land at the Site is almost entirely Grade 2. A small area of the northern edge is shown as Grade 4. There is no detailed (post-1988) ALC survey information covering the Site.

<sup>&</sup>lt;sup>4</sup> Welsh Government. Predictive Agricultural Land Classification (ALC). Available online @ <a href="http://lle.gov.wales/catalogue/item/PredictiveAgriculturalLandClassificationALCMap2/?lang=en">http://lle.gov.wales/catalogue/item/PredictiveAgriculturalLandClassificationALCMap2/?lang=en</a> Last accessed Sepember 2020

#### 4 AGRICULTURAL LAND CLASSIFICATION

- 4.1 The location and extent of agricultural land in the different ALC grades are shown on **Plan KCC2862/REP02**. It has been determined that the quality of agricultural land at the Site is limited by soil stoniness to Subgrade 3a, where there are 207 FCD, the topsoil is medium silty clay loam topsoil, and the subsoil is seasonally waterlogged (Wetness Classes II and III). A single auger bore, i.e., auger bore 6, which is well drained (Wetness Class I), is limited by soil wetness to Grade 2 but, as this is an isolated occurrence, this grade of land has not been mapped out separately following ALC convention.
- 4.2 The area and proportion of agricultural land in each ALC grade has been measured from an ALC map given as **Plan KCC2862/REP02**. The findings are reported in Table 4 below. Table 4: Agricultural Land Classification Raglan Enterprise Park, Monmouthshire

ALC Grade	Area (Ha)	Area (% of Total Site)
Grade 1 (Excellent)	0	0
Grade 2 (Very Good)	0	0
Subgrade 3a (Good)	12.8	100
Subgrade 3b (Moderate)	0	0
Grade 4 (Poor)	0	0
Grade 5 (Very Poor)	0	0
Non-agricultural / Other land	0	0
Total	12.8	100

Appendix KCC1
Summary of Auger Points and Pit Data

Project Number	Project Name					Parcel
C703	KCC2862 - Raglan Industrial Estate, Raglan	ustrial Estate, Raglan				
Date of Survey	Survey Type		Surveyor(s)		Company	
24/06/2020	Detailed ALC		RWA		Askew Land and Soil	d and Soil
Weather		Relief		Land use ar	Land use and vegetation	uc
Dry, Sunny		Level				
Grid Reference			Postcode	Altitude		Area
SO412070			NP152HB	49		13
MAFF prov		MAFF detailed		Flooding		
Grade 3		None		Flood Zone 1	1	
AAR	AT0	MDw	MDp	FCD		Climate grade
986	1483	97	87	207		1
Bedrock			Superficial deposits	deposits		
Raglan Mudstone Formation	mation		None			1000000
Soil association(s) 1:250,000	50,000			Detailed soil information	no	
Milford Association				None		
<b>Revision Number</b>			Date Revised	p		
2			09/09/2020			

Raglan Industrial Estate, Raglan Revision 2 Revision Date 09/092020

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	3 Grade	33	+
ALC	imitation 1 Limitation 2 Limitation 3		
Final ALC	nitation 2		
	tion 1 Lin	55	
	Limita	Wetness	+
Wet	VC Gw	1 WCII 3a	
Drought	MBw MBp Gd WC	-	1
Dro	MBW N	No 48 34	
-	CacO3 Mn C SPL	N N N N N N N N N N N N N N N N N N N	1
	N Cacos	Not Applid NON - P.No. Moderate NON - P.No. Moderate NON - P.Yes	+
	pe SUBS STR	d w Not Ap w Moder	+
Ped	ize Sha	e scratche	
Pe	Strength Size Shape	ch cannot b	
	Type Str	HR - All hard rocks or stones (i.e. those which cannot be scratched w Not ApplicNON - Noo HR - All hard rocks or stones (i.e. those which cannot be scratched w Moderate NON - Noo Moderate NON - Noo Moderate NON - Neces	+
Stones - type 2	> 6cm T	stones (i.e.	
Stone	% > 2cm > 6cm	d rocks or	
	Kype %	HR - All har	t
Stones - type 1	> 2cm > 6cm Type	0	
Stor	% > 2cm	н	
1		MZCL - Sil HZCL - Sil C - Clay 0	
-	di di	No N	F
<b>Grey Mottles</b>	m Munsell colour		
Gre	For		1
Ochreous Mottles	Form   Munsell colour	R5/8	
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	Munsell colour		
Matrix	ick Munse	5YR4/4 5YR4/3 5YR5/6	
epth (cm)	Bttm Thick	25 25 50 25 120 70	
7	Top	0 52 53	-
Alt (m) Stand O Arnest	herr frau		
O Vent	adois		
Ale (m)		9 46	
	<u>&gt;</u>	00 206900	
Grid ref.	×	6900 3413	
	NGR	SO 41300 06900 341300 206900 46	END
Point		13	1

F	Ped. Shape	Ped. Size
	SG - Single grain	VF - Very Fine
	GRA - Granular	F - Fine
	SAB - Subangular Blocky	M - Medium
	AB - Angular Blocky	C - Coarse
t	PRIS - Prismatic	VC - Very Coarse
nent	PLAT - Platy	NA - N/A
	MASS - Massive	
	NA - N/A	Degree of Ped. Development
nt		W - Weak
	Subsoil Structure Condition	M - Moderate
inct	Not Applicable	S - Strong
ninent	Good	NA - Not applicable
	Moderate	
	Poor	Wetness Class
		WCI
	Soil or Ped. Strength	WCII
	Loose	WC III
bam	Very friable	WC IV
silt loam	Friable	WCV
ifibrous peats	Firm	WC VI
	Very firm	
_	Extremely firm	ALC Grades
loam	Extremely hard	1
(AA)	N/A	2
		3a
n (heavy)	Calcareousness	3b
to roots	NON - Non-calcareous (<0.5% CaCO3)	4
Sand	VSC - Very slightly calcareous (0.5 - 1% CaCO3)	S
-0	SC - Slightly calcareous (1 - 5% CaCO3)	Non-Ag
n sand	MC - Moderately calcareous (5 - 10% CaCO3)	
	VC - Very calcareous (>10% CaCO3)	Gley
(dium)		None
		Gley
y loam		N/A
Assembly Income		

Ragian Industrial Estate, Ragian Revision 2 Revision Date 09/09/2020

Location	Location										П	Date			П	Surveyor(s)	r(s)			Company		
KCC2862 - Ragian Enterprise Park, Ragian	KCC2862 - Ragian Enterprise Park, Ragian	2 - Raglan Enterprise Park, Raglan	rprise Park, Raglan	an				1000			$\neg$	24-Jun-20			$\neg$	RWA			7	Askew Lar	Askew Land and Soil	
WC Grade Limitation(s)	Grade			Limitation(s)	mitation(s)		П			Notes												
III 3a Wetness				Wetness	/etness					Top of slowly permeable layer (5PL) at 52cm. Gleyed within 70cm, but not within 40cm. 207 FCD. Wetness Class III Table 8 ALC Guidelines.	erme	able layer (SPL	) at 52cm. G	leyed with	iin 70cr	n, but not	within 40cm.	207 FCD. Wet	ness Class II	Table 8 AL	C Guideline	5
Altitude Nearest Topography	Nearest	Nearest	Topography							Flora							Weather ar	Weather and conditions				
East North point Gradient Aspect Slope form Surface	point Gradient Aspect Slope form	Gradient Aspect Slope form	Aspect Slope form	Slope form			Surface	urface		Culivation type		Vegetation types	ypes				Temp	Sky	Wind		Precipitation	no
410 069 S4 AB10 2° East Straight Level	S4 AB10 2° East Straight	2° East Straight	East Straight	Straight			Level	evel	_			Ley grassland	-				Warm	Cloudy	Slight		Showers	
Horizon Depth Matrix Gleying Mottles	Gleying				Mottles	Mottles	Mottles				Stone	Stone content		Cal	c. Mn	C Ped/soi	Calc.   Mn C   Ped/soil structure			Horizon b	Horizon boundary Biopores SPL	Siopores
Top Bttm Texture Colour Munsell Gley Colour Munsell Form Colour	Colour Munsell Gley Colour Munsell Form Colour	Colour Munsell Gley Colour Munsell Form Colour	Gley Colour Munsell Form Colour	Colour Munsell Form Colour	Munsell Form Colour	Form Colour			$\overline{}$	Munsell	H %	% H Type	S Type			Dev.	Size	Structure	Strength	Strength Distinct	Form	0.5mm
0 23 MZCL Brown 7.5YR4/3 No	MZCL Brown 7.5YR4/3	7.5YR4/3		No							1 1	Hard		No	No	Mod	Fine	SAB	Firm	Clear	Smooth	No >0.5%
h 5YR5/3 No Reddish 5YR5/3 FD Strong	HZCL Reddish 5YR5/3 No Reddish 5YR5/3 FD Strong	h 5YR5/3 No Reddish 5YR5/3 FD Strong	No Reddish 5YR5/3 FD Strong	Reddish 5YR5/3 FD Strong	h SYR5/3 FD Strong	FD Strong	Strong			7.5YR5/6	1 1	Hard		S.	S N	Mod	Medium	Angular	Firm	Clear	Smooth	No
Brown Brown Brown	Brown	Brown				Brown	Brown	rown						_	_							>0.5%
52 65 C Greyish 2.5Y5/2 Yes Greyish 2.5Y5/2 CD Strong	C Greyish 2.5Y5/2 Yes Greyish 2.5Y5/2 CD	2.5Y5/2 Yes Greyish 2.5Y5/2 CD	Yes Greyish 2.5Y5/2 CD	Greyish 2.5Y5/2 CD	2.5Y5/2 CD	8		trong		7.5YR5/6	0			No		Few Poor	Coarse	Prismatic	Firm	n/a	n/a	Yes
Brown Brown	Brown	Brown				Brown	Brown	rown														<0.5%

Appendix KCC2 Laboratory Analysis



				ANALYTICAL REPORT	PORT			
Report Number Date Received Date Reported Project Reference Order Number	13024-20 29-JUN-2020 03-JUL-2020 SOIL KCC 2862		P248	SARAH KERNON KERNON COUNTRYSIDE CONSULTANTS LTD GREENACRES BARN PURTON STOKE WILTSHIRE SNS 4LL	DE	Client KCC 2862 RAGLAN I	KCC 2882 RAGLAN ENTERPRISE ZONE	
Laboratory Reference		SOIL482602	SOIL482603					
Sample Reference		KCC 2862 4	KCC 2862 10					
Determinand	Unit	SOIL	SOIL					
Sand 2.00-0.063mm	M/M %	13	=					
Silt 0.063-0.002mm	M/M %	63	69					
Clay <0.002mm	% w/w	24	20					
Textural Class **		MZCL	MZCL					
Notes								
Analysis Notes Document Control	The sample submitted was of adequate size to complete all analysis re.  The results as reported relate only to the item(s) submitted for testing.  The results are presented on a dry matter basis unless otherwise stip.  This test report shall not be reproduced, except in full, without th	ted was of adeque orded relate only to sented on a dry m all not be reprod	ate size to composite the item(s) substanter basis unleated, except in	The sample submitted was of adequate size to complete all analysis requested.  The results as reported relate only to the item(s) submitted for testing.  The results are presented on a dry matter basis unless otherwise stipulated.  This test report shall not be reproduced, except in full, without the written approval of the laboratory.	d. n approval of the Is	iboratory.		
	** Please see the a	ittached document	t for the definitio	** Please see the attached document for the definition of textural classes.				
Reported by	Myles Nicholson. Natural Resource Management, a trading division of Cawood Sci Coopers Bridge, Bazziers Lane, Bracknell, Berkshire, RG42 6NS Tel: 01344 886338 Fax: 01344 890972 email: enquiries@nrm.uk.com	10/Soft Management, a tra vaziers Lane, Braot irm.uk.com	ading division of	Myfes Nicholson. Natural Resource Management, a trading division of Cawood Scientific Ltd. Natural Resource Management, a trading division of Cawood Scientific Ltd. Tel: 01344 886338 Fax: 01344 890972 email: enquiries@nrm.uk.com				

age 1 of 1

## **Technical Information**



## **ADAS (UK) Textural Class Abbreviations**

The texture classes are denoted by the following abbreviations:

Class	Code
Sand	S
Loamy sand	LS
Sandy loam	SL
Sandy Silt loam	SZL
Silt loam	ZL
Sandy clay loam	SCL
Clay loam	CL
Silt clay loam	ZCL
Clay	С
Silty clay	ZC
Sandy clay	SC

For the sand, loamy sand, sandy loam and sandy silt loam classes the predominant size of sand fraction may be indicated by the use of prefixes, thus:

- vf Very Fine (more than 2/3's of sand less than 0.106 mm)
- f Fine (more than 2/3's of sand less than 0.212 mm)
- c Coarse (more than 1/3 of sand greater than 0.6 mm)
- m Medium (less than 2/3's fine sand and less than 1/3 coarse sand).

The subdivisions of *clay loam* and *silty clay loam classes* according to clay content are indicated as follows:

- M medium (less than 27% clay)
- H heavy (27-35% clay)

Organic soils i.e. those with an organic matter greater than 10% will be preceded with a letter O.

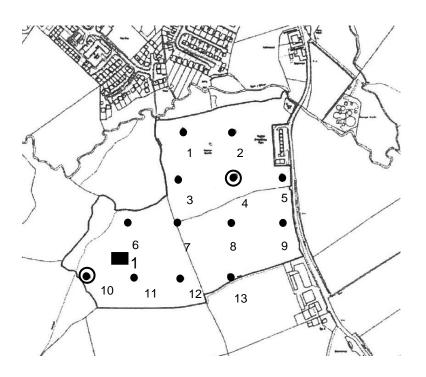
Peaty soils i.e. those with an organic matter greater than 20% will be preceded with a letter P.

For further information on all analyses and services available from NRM Laboratories contact us on. Tel: 01344-886-338 Fax: 01344-890-972 Email: enguines@nim.uk.com Website, www.nrm.uk.com



### Plan KCC2862/REP01 Auger Points Plan





#### KEY



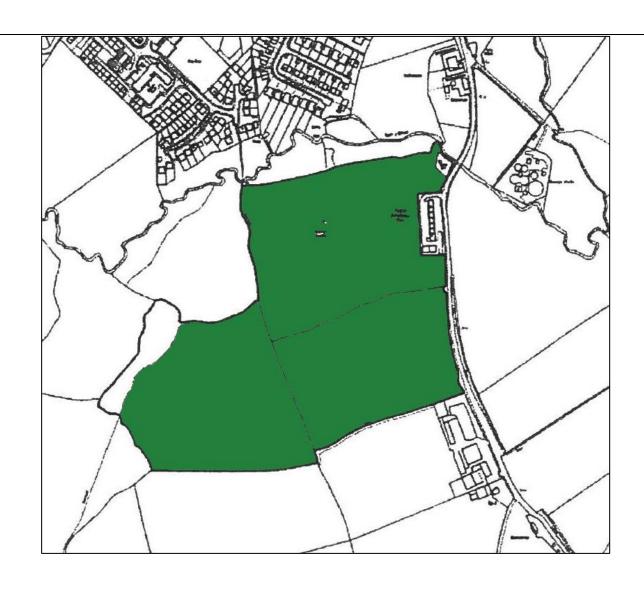
Auger sample location Topsoil sample Soil Pit

PLAN	KCC2862/REP01			
TITLE	Auger Points Plan			
SITE	Raglan Enterprise	Park		
CLIENT	Monmouthshire Co	ounty Coun	cil	
NUMBER	KCC2862/REP01 09/20hr			
DATE	September 2020	SCALE	NTS	

KERNON COUNTRYSIDE CONSULTANTS LTD GREENACRES BARN, PURTON STOKE, SWINDON, WILTSHIRE SN5 4LL

Tel 01793 771 333 Email: info@kernon.co.uk
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### Plan KCC2862/REP02 Agricultural Land Classification



KEY	GRADE	На	%	PLAN	KCC2862/REP02	
	Grade 1			TITLE	Agricultural Land Classification	
	Grade 2			SITE	Raglan Enterprise Park	
	Grade 3a	12.8	100	CLIENT	Monmouthshire County Council	
	Grade 3b			NUMBER	KCC2862/REP02 09/20hr	
	Grade 4			DATE	September 2020 SCALE NTS	
	Grade 5			KERNON COUNTRYSIDE CONSULTANTS LTD GREENACRES BARN, PURTON STOKE, SWINDON, WILTSHIRE SN5 4LL		
	Non Agricultural					
	Urban			Tel 01793 771 333 Email: info@kernon.co.uk  This plan is reproduced from the Ordnance Survey under copyright license 100015226		
	Not Surveyed					

