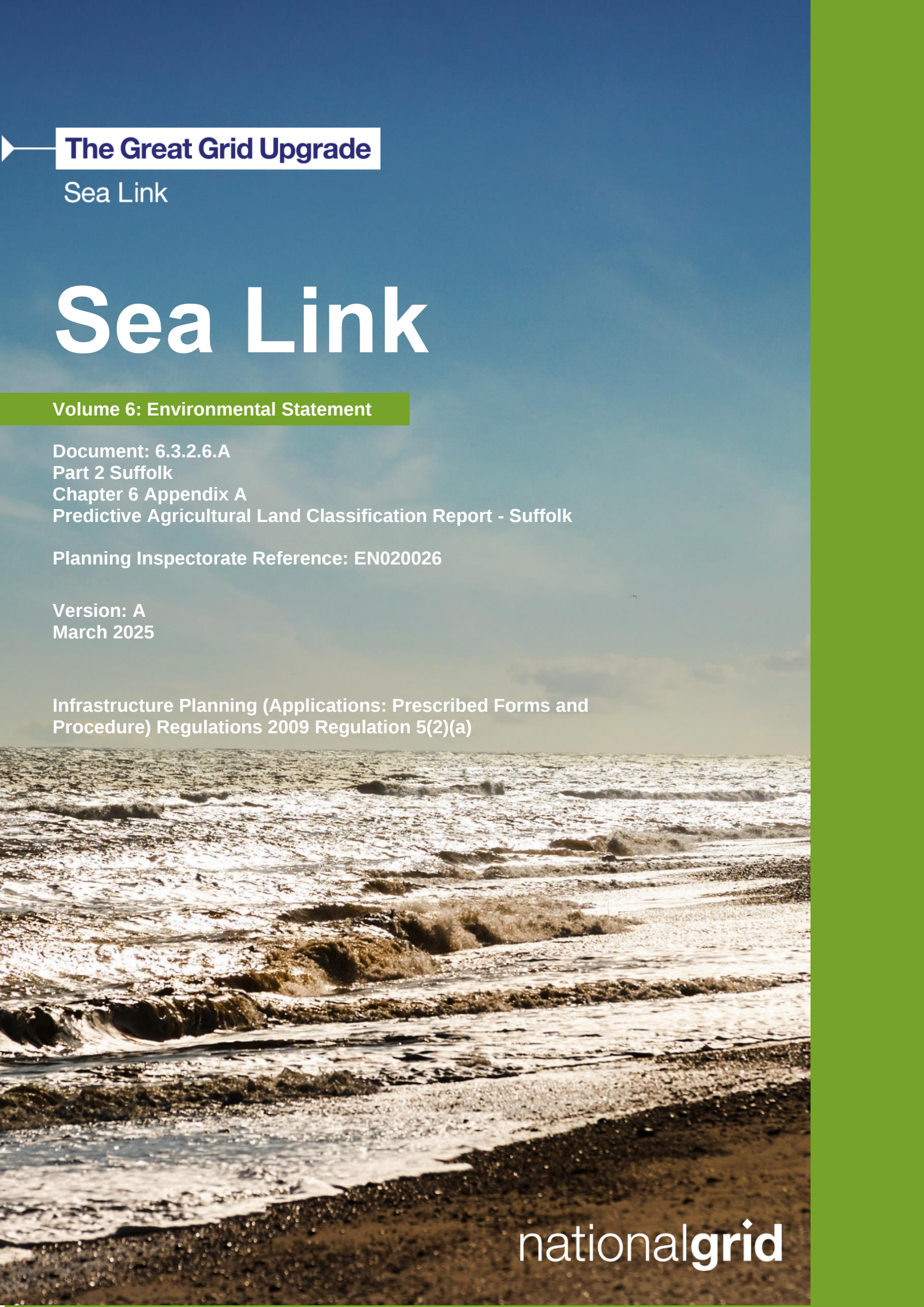




The Great Grid Upgrade

Sea Link

Sea Link

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Chapter 6 Appendix A
Predictive Agricultural Land Classification Report - Suffolk

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1. Introduction

1.1 Background

1.1.1 This appendix sets out the assessment undertaken to assign grades to agricultural land in accordance with the Agricultural Land Classification (ALC) system associated with the Proposed Project (as described in **Application Document 6.2.1.4 Part 1 Introduction Chapter 4 Description of the Proposed Project**).

1.1.2 This report should be read in conjunction with the following ES chapters:

- **Application Document 6.2.1.4 Part 1 Introduction Chapter 4 Description of the Proposed Project;**
- **Application Document 6.2.1.5 Part 1 Introduction Chapter 5 EIA Approach and Methodology;**
- **Application Document 6.2.1.6 Part 1 Introduction Chapter 6 Scoping Opinion and EIA Consultation;**
- **Application Document 6.2.1.3 Part 1 Introduction Chapter 3 Main Alternatives Considered;** and
- **Application Document 6.2.2.6 Part 2 Suffolk Chapter 6 Agriculture and Soils.**

1.1.3 This report is supported by the following figures:

- **Application Document 6.4.2.6 Agriculture and Soils.**

1.1.4 The Agricultural Land Classification (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 Grades 1, 2, and Subgrade 3a are categorized as Best and Most Versatile (BMV) (Ministry of Agriculture, Fisheries and Food, 1988) (Natural England, 2012) . Further details of the ALC system and national planning policy implications are set out by Natural England (Natural England, 2021).

1.1.5 Predictive ALC grading has been used as an alternative to undertaking intrusive field surveys because of an identified risk of unexploded ordnance being present in the areas proposed to be surveyed. This approach was discussed with Natural England in December 2024 and January 2025. Whilst Natural England support the inclusion of the predictive mapping they highlight that this provides an indication of the ALC grade and does not provide the information required to inform the development of a Soil Management Plan (SMP). As set out in **Application Document 6.2.2.6 Part 2 Suffolk Chapter 6 Agriculture and Soils** surveys will be completed pre-construction to ensure site-specific survey data is available for the SMP.

1.1.6 The predictive ALC calculations were undertaken by collating and assessing available site and soil data and calculating land grades from these data using the Ministry of Agriculture, Fisheries and Food (MAFF) Agricultural Land Classification of England and Wales: Revised Guidelines and Criteria for Grading the Quality of Agricultural Land

(henceforth referred to as the 'ALC Guidelines'). The data manipulation was undertaken in GIS.

2. Predictive ALC Grading Methodology

- 2.1.1 This ALC assessment of agricultural land within the Order Limits for the Suffolk Onshore development relies upon the predictive modelling of agricultural grades for 448 location points.
- 2.1.2 These location points were arranged in areas across the Order Limits on a 100 m grid pattern at a density of approximately one sample point per hectare. The coordinates for all predictive ALC grading locations are listed in Annex A.
- 2.1.3 Mapping has been extended to ensure that all ecological mitigation land has also been accounted for in the assessment.
- 2.1.4 The predictive ALC grading comprised an assessment of the likely soil types present and the factors affecting soils at given locations to assess the potential land grade using the Ministry of Agriculture, Fisheries and Food (MAFF) Agricultural Land Classification of England and Wales: Revised Guidelines and Criteria for Grading the Quality of Agricultural Land (Ministry of Agriculture, Fisheries and Food, 1988) (henceforth referred to as the 'ALC Guidelines'), as set out in Sections 2.2 – 2.5 of this appendix.
- 2.1.5 It is noted that this approach has limitations when compared to physical detailed ALC surveys, with the outcome for each point assessed being a modelled prediction and not therefore definitive, albeit based on the best available data. The method adopted, however, has been used to supplement the available Provisional ALC mapping at a scale of 1:250,000 (which is not considered suitable for use at a project level) to provide a greater level of refinement than using the Provisional ALC 1:250,000 mapping alone.
- 2.1.6 Until such a time that a predictive ALC methodology is developed for England, this predictive ALC methodology follows the approach developed for the Welsh Government's Predictive ALC Map online (Welsh Government, 2021), which in turn is based on the ALC Guidelines. An ALC grade has been determined for 448 points across the land within the Order Limits where reliable desk-based information was available.
- 2.1.7 The predictive ALC mapping has utilised published information on climate, topography, flood risk, geology, soil types and associations, MAFF Provisional ALC (1:250,000) and Defra's Likelihood of BMV map (Defra, 2017) (Defra, 2024).
- 2.1.8 The data used in the predictive ALC and the resulting ALC grade per sample point are shown in Annex A.
- 2.1.9 The data table in Table 2.1 is structured to follow the sequential approach of the ALC Guidelines accounting for the data featured in Annex A.

Table 2.1 Data used in predictive ALC

Data	Description of data and source
Auger bore location- using the Ordnance Survey (OS) National Grid	
UID (A)	UID = Unique identification for sample point.
Easting (B)	This is a six-figure coordinate representing eastward distance on a map. The easting and northing figures are used to locate the sample point with precision and is especially useful when using a GPS.
Northing (C)	This is a six-figure coordinate representing northward distance on a map. The easting and northing figures are used to locate the sample point with precision and is especially useful when using a GIS.
Land use (D)	These are the terms and abbreviations used for soil pit and auger boring information collected during ALC surveys. These conform to definitions contained in the Soil Survey Field Handbook (Hodgson, 1997) and are available from Natural England (2016). For the purpose of this predictive ALC, the land use for each sample point was recorded from the latest available aerial imagery on Google Earth.
Climate limitations: The climate data listed below are interpolated from climatic data required for the assessment of ALC. The climatic data are provided as a grid dataset with 5 km spacings. The datasets are derived from data supplied by the Meteorological Office (1989), Bracknell, which were compiled and validated in collaboration with the Soil Survey and Land Research Centre (now National Soil Resources Institute) and the MAFF Agricultural Development and Advisory Service. For this predictive ALC, the representative climate for ALC has been interpolated for every predicted auger location covering the Order Limits, as shown in Annex A. The ALC climate data used for determining (i) overall climate limitation, (ii) soil wetness and (iii) soil droughtiness for each predictive ALC sample point depends upon the interpolated climate data from the available 5km dataset. Table 2.2 details the initial climatic data set from which the modelled values were interpolated. A key to the ALC climate data headings is given below.	
AAR (E)	AAR = Average Annual Rainfall (mm)
AT0 (F)	AT0 = Accumulated Temperature above 0°C between January and June (day °C)
MDW (G)	MDW = Moisture Deficit for Wheat (mm)
MDP (H)	MDP = Moisture Deficit for Potatoes (mm)

Data	Description of data and source
FCD (I)	FCD = Field Capacity Days (days). This is a meteorological parameter which estimates when the soil moisture deficit is zero.
Climate grade (J)	This is the overall climate limitation. This can be read from the graph (X-axis is AAR and Y-axis is ATO) given as Figure 1 of the ALC Guidelines (MAFF, 1988).
Site Limitations	
Elevation (K)	This is altitude (m) above ordnance datum (AOD). For this predictive ALC, the altitude per sample location (located using six-figure easting and northing coordinates) has been derived from the National LiDAR programmes 2022 composite DTM model.
Gradient (L)	This is the angle of slope in degrees (°). For this predictive ALC model, this was calculated using the slope geoprocessing tool to calculate from the DTM elevation model.
ALC grade according to gradient (M)	Where the angle of slope at a predictive auger point was calculated to be equal to, or less than, 7° the ALC grade at this location could be Grades 1, 2 and Subgrade 3a according to gradient. The gradient of such land is considered to be suitable for most kinds of agricultural machinery, including precision seeding and harvesting equipment, as per Table 1 of the ALC Guidelines (MAFF, 1988). All but 27 predictive auger locations were found to have a gradient less than or equal to 7°.
ALC grade according to micro-relief (N)	Following the ALC Guidelines (MAFF, 1988), a micro-relief limitation to agricultural land quality exists where complex changes in slope angle and direction over short distances, or where the presence of boulders or rock outcrops, even on level or gentle slopes, can severely limit the use of agricultural machinery. For the purpose of this predictive ALC, an assessment of potential micro-relief limitations was made for each sample location using OS maps (1:25,000) and aerial imagery on Google Earth (Google, 2022).
Flood zone (O)	This identifies the flood zone for each sample point. This information is available on the Environment Agency's (2020) Flood Map for Planning website. Flood zones refer to the probability of river and sea flooding, ignoring the presence of defences, as follows: • Zone 1 Low Probability – Land having a less than 1 in 1,000 annual probability of river or sea flooding. • Zone 2 Medium Probability – Land having between a 1 in 100 and 1 in 1,000 annual probability of river

Data	Description of data and source
	flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding. - Zone 3a High Probability – Land having a 1 in 100 or greater annual probability of river flooding; or land having a 1 in 200 or greater annual probability of sea flooding. - Zone 3b The Functional Floodplain – This zone comprises land where water must flow or be stored in times of flood.
Predicted grade according to flood risk in summer (P)	This is the grade according to flood risk in summer, as per Table 2 of the ALC Guidelines (MAFF, 1988). No data were available to be able to assess flood risk in summer. For this assessment, the grade according to flood risk in summer was predicted to be Grade 1 (i.e., no limitation) at all sample points.
Predicted grade according to flood risk in winter (Q)	This is the grade according to flood risk in winter, as per Table 3 of the ALC Guidelines (MAFF, 1988). No data were available to be able to assess flood risk in winter. For this assessment, the grade according to flood risk in winter was predicted to be Grade 1 (i.e. no limitation) at most sample points. Where the sample point was in Flood Zone 3 the point was limited to Grade 3b.
Soil and Interactive Limitations	
Bedrock (R)	This is the bedrock underlying each predictive ALC sample point identified from British Geological Survey (BGS) information at a scale of 1:50,000. This information was provided per sample point using GIS. This information is also publicly available on the BGS (2022) Geology of Britain viewer.
Superficial Deposits (S)	This is a superficial deposit (where present) which covers the bedrock. This information was determined for each predictive ALC sample point identified from BGS information at a scale of 1:50,000. This information was provided per sample point using GIS. This information is also publicly available on the BGS (2022) Geology of Britain viewer.
Soil association (T)	The whole of England and Wales is covered by the National Soil Map, comprising six soil maps at a scale of 1:250,000 with accompanying Regional Bulletins. The National Soil Map shows the location and extent of soil associations, which are groupings of spatially related soil types. Data and information on soil associations can be obtained from the Land Information System (LandIS) webpage.

Data	Description of data and source
Topsoil texture (U)	This is the texture of the topsoil used to represent each predictive ALC sample point. It is derived from the SSEW description of the predominant soil series used to represent the soil at each predictive ALC sample point, as described in 'soil series' above. The SSEW description of soil series is available on the Land Information System (LandIS) 'Soils Guide'.
Wetness Class (V)	The Wetness Class (WC) of a soil is classified according to the depth and duration of waterlogging in the soil profile and has six categories from WC I, which is well drained, to WC VI, which is very poorly drained. The procedure for assessing WC for ALC purposes is described in Appendix 3 of the ALC Guidelines (MAFF, 1988). For the purpose of this predictive ALC, the WC used to represent each sample point is the WC as shown in the Wetness Mapping available from Cranfield University.
Topsoil stoniness (W)	This is the indicative stone content in the topsoil at each predictive ALC sample point. It does not provide a predictive ALC grade according to stone content, as per Table 5, ALC Guidelines (MAFF, 1988), as insufficient data regarding stone size and content are available from published sources. The indicative information is derived from available auger logs for land within the Order Limits that has been purchased from Cranfield University. This auger bore information was used in conjunction with the Soil Association information available through LandIS.
Predicted grade according to soil depth (X)	This is a prediction of the ALC grade according to soil depth, as per Table 4 of the ALC Guidelines (MAFF, 1988). It utilises the average depth of topsoil as per the auger logs purchased from Cranfield University. This auger bore information was used in conjunction with the Soil Association information available through LandIS.
Predicted grade according to soil stoniness (Y)	This is a prediction of the ALC grade according to soil stoniness, as per Table 5 of the ALC Guidelines (MAFF, 1988). It utilises information from LandIS on Soil Associations, as well as accounting for average stoniness in the auger bore logs purchased from Cranfield University (Annex B).
Predicted grade according to soil wetness (Z)	This is the predictive ALC grade according to soil wetness, as per Table 6 of the ALC Guidelines (MAFF, 1988). It utilises (i) topsoil texture, (ii) WC (see 'Wetness Class' and (iii) Field Capacity Days (see 'Climate Limitations' above).
Calculated moisture balance – wheat (AA)	The Moisture Balance (MB) value for wheat is calculated in accordance with the ALC Guidelines (MAFF, 1988) as follows: Moisture Balance (MB) for wheat = Crop Adjusted Available Water Capacity (AP) – Moisture Deficit (MD) for wheat.

Data	Description of data and source
	For the purpose of this predictive ALC, the MB value for wheat for each predictive ALC sample point is derived from calculated data using (i) soil profile data for the predominant soil series, and (ii) relevant climate data for the respective 1km square (see 'Climate Limitations' above).
Predicted grade according to soil droughtiness – wheat (AB)	This is the predicted ALC grade according to droughtiness for wheat per sample point, following Table 8 of the ALC Guidelines (MAFF, 1988). It is determined from the Moisture Balance (MB) value for wheat, as described in 'Calculated Moisture Balance – Wheat' above.
Calculated moisture balance – potatoes (AC)	The Moisture Balance (MB) value for potatoes is calculated in accordance with the ALC Guidelines (MAFF, 1988) as follows: Moisture Balance (MB) for potatoes = Crop Adjusted Available Water Capacity (AP) – Moisture Deficit (MD) for potatoes. For the purpose of this predictive ALC, the MB value for potatoes for each predictive ALC sample point is derived from calculated data using (i) soil profile data for the predominant soil series (see 'Soil Series' above), and (ii) relevant climate data for the respective 1km square (see 'Climate Limitations' above).
Predicted grade according to soil droughtiness – potatoes (AD)	This is the predicted ALC grade according to droughtiness for potatoes per sample point, following Table 8 of the ALC Guidelines (MAFF, 1988). It is determined from the Moisture Balance (MB) value for potatoes, as described in 'Calculated Moisture Balance – Potatoes' above.
Predicted grade according to erosion (AE)	This is the predicted ALC grade according to erosion, as per pages 28 and 29 of the ALC Guidelines (MAFF, 1988). For the purpose of this predictive assessment we have assumed erosion to be a non-limiting factor; this is a factor that would be verified through site-specific surveys.
Predicted ALC according to most limiting factor (AF)	This is the final predictive ALC grade for each of the 448 sample points. It represents the most limiting (worst) grade(s) according to the climate, site, soil and interactive limitations.
MAFF provisional ALC grade (AG)	This is the Provisional ALC grade per sample point derived from MAFF Provisional (Pre-1988) ALC maps at a scale of 1:250,000. The Provisional ALC grade per sample point was determined using GIS, but the Provisional ALC information is available via Landscape/Landscape Classifications/Post-1988 ALC on the MAGIC website (Natural England, 2020). Pdf versions of the 1:250,000 Provisional ALC maps are available for download from Natural England (2010).
Defra likelihood of encountering BMV (AH)	This is a prediction made by Defra of the likelihood of encountering BMV agricultural land, i.e. ALC Grade 1, Grade 2

Data	Description of data and source
	and Subgrade 3a. High likelihood of BMV land (>60% area BMV); moderate likelihood of BMV land (20–60% area BMV); low likelihood of BMV land (<=20% area BMV); non-agricultural use; urban/industrial. The likelihood of encountering BMV at each sample point was derived using GIS information. A pdf version of the Likelihood of Encountering BMV maps is available from Defra, (2017).
Comments (AI)	This is additional information which is relevant to the predictive ALC grade per sample point.

2.2 Climate

2.2.1 The available climate data for ALC which have been used to represent 5 km grid squares covering the Order Limits are shown in Table 2.2. These are the values that have been used to calculate interpolated values for each of the predicted auger locations.

Table 2.2 Available Met Office climate data for land within the Order Limits

5 km grid reference	Height (m)	AAR	AT0	FCD	MDW	MDP	Grade according to climate only ¹
TM350600	21	594	1423	111	120	117	1
TM350650	23	618	1419	115	120	116	1
TM400550	15	600	1431	109	124	121	1
TM400600	15	610	1429	111	121	118	1
TM400650	34	600	1405	110	120	116	1
TM450550	3	589	1444	105	128	126	1
TM450600	10	595	1434	106	124	121	1
TM500550	0	544	1446	98	129	128	1
TM500600	0	580	1444	103	126	124	1

Key to Table 2.2

Parameter	Definition
AT0	Accumulated Temperature above 0°C (January – June)
AAR	Average Annual Rainfall (mm)

¹ This is the grade according to climate only, excluding any other limiting factor, i.e., site, soil and/or interactive limitations.

FCD	Field Capacity Days
MDW	Moisture Deficit (mm) Wheat
MDP	Moisture Deficit (mm) Potatoes
Climate grade	Best ALC Grade According to Climate Limitation

- 2.2.2 With reference to Figure 1 ‘*Grade according to climate*’ of the ALC Guidelines (Ministry of Agriculture, Fisheries and Food, 1988), there is no overall climatic limitation to the quality of agricultural land within the Order Limits for the Suffolk Onshore development. This means that agricultural land 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.
- 2.2.3 The climatic data presented in Table 2.2 was then used to calculate interpolated climatic values for each of the predicted auger locations, based upon the proximity of each location to the surrounding climatic points. The interpolated climatic values for each location are detailed in Annex A.
- 2.2.4 Agricultural land within the Order Limit is predicted to be at field capacity (i.e., near saturation point) for between 105 and 111 days (average 108 days) per year (Annex A). In combination with topsoil texture and wetness class, this will cause an interactive limitation to agricultural land quality, i.e., soil wetness and/or soil droughtiness.

2.3 Site

- 2.3.1 The study area assessed in this section extends from just south of Saxmundham to the coast at Aldeburgh.
- 2.3.2 Regarding 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 changes in slope and angle over short distances); and
 - Risk of flooding.

Gradient and micro-relief

- 2.3.3 Using available desk-based information the land within the Order Limits across the Suffolk Onshore section of the proposed project is shown as relatively level and with an average gradient of 2.47°. On average, the quality of agricultural land is generally not limited by gradient as the angle of slope does not exceed 7° (See Table 1 of the ALC Guidelines; (Ministry of Agriculture, Fisheries and Food, 1988)); however there are 27 locations (as identified in Annex A) where the calculated gradient exceeds 7°, and is as such determined to be a limiting factor. Likewise, without further site-based assessment, it is assumed that the quality of land within the Order Limits is not limited by micro-relief.

Risk of flooding

- 2.3.4 From the Environment Agency Flood Map for Planning website (Environment Agency, 2021) the land within the Order Limits for the Suffolk Onshore section of the project

contains significant areas of land classified as being in Flood Zone 3, as well as further areas in Flood Zone 2. For Flood Zone 3 this means that there is a high probability of flooding in these areas, quantified as a 1% or more chance of flooding from rivers, or a 0.5% or more chance of flooding by sea. For Flood Zone 2 these risks are noted as a 0.1% risk of flooding from rivers and a 0.05%-0.1% chance of flooding from the sea.

- 2.3.5 These flood zones primarily follow the coastal strip and the land surrounding local rivers such as the River Alde, River Fromus, and the Hundred River.
- 2.3.6 Predictive auger locations located within a Flood Zone 3 were assigned a Flood Risk Grade 3b. There are 19 auger locations situated within areas mapped as Flood Zone 3, and as such flood risk was noted as a potential limiting factor.

2.4 Soil

Geology/soil parent material

- 2.4.1 The solid geology underlying the majority of the Order Limits is described as bedrock of the Crag Formation, comprising sands, gravels, silts, and clays. The gravels in the lower part of the group are almost entirely composed of flint.
- 2.4.2 The solid geology is in the main overlain by diamicton till superficial deposit (Lowestoft Formation). This material was deposited around 3 million years ago in the Quaternary Period when the local environment was dominated by ice age conditions. Closer to the coast the superficial deposits are replaced by glacial sands and gravel formed up to 3 million years ago in the Quaternary Period.

Published information on soils

- 2.4.3 Using currently available data the soil associations expected within the Order Limits for the Onshore Suffolk development are mapped as Wallasea 1, Newport 2, Newport 4, Melfordd, Ragdale, and Hanslope. From available Soil Survey of England and Wales information, the soils within each association may be described as follows:

Wallasea 1 Association

- 2.4.4 Soils in this association are described as deep stoneless non-calcareous and calcareous clayey soils. Soils locally have humose or peaty surface horizons. This is the main association on the marine alluvium of the coastal marshes across north Kent, Essex and Suffolk. The soil pattern is simple with non-calcareous clayey Wallasea pelo-alluvial gley soils, and clayey Newchurch pelo-calcareous alluvial gley soils occupying almost all the land. There are inextensive inclusions of fine loamy Paglesham, fine silty over clayey Pepperthorpe, fine silty Agney and clayey Dymchurch soils.
- 2.4.5 The association covers 196 km² along the deeply indented coastlines of Essex and Suffolk south of the river Alde. It is almost entirely composed of Wallasea soils with calcareous Newchurch soils randomly distributed. On Bradwell marshes in Essex which have been reclaimed relatively recently, the proportion of Newchurch soils is larger, and this soil is dominant locally in Suffolk where there are also a few sulphuric soils mainly of the Normoor series.
- 2.4.6 Peat soils and soils with humose or peaty topsoil are rare components, confined to narrow fringes at the landward edges of the marshes. In Suffolk, Appledore, Dowels and peaty Adventurers' soils, and on Little Thurrock marshes Downholland and Walkerith

soils, occur in such positions. Goldhanger and Old Hall marshes to the north of the Blackwater and other small areas elsewhere are crossed by deep creeks and remain under rough grazing or permanent grassland.

Newport 2 Association

- 2.4.7 Soils in this association are characterised by deep well-drained sandy often ferruginous soils. This association of deep well-drained sandy soils covers 152 km², mostly in Suffolk on gentle and moderate slopes below the coastal plateau between Ipswich, Aldeburgh, and Felixstowe, but there are small areas south of King's Lynn in Norfolk. In Suffolk the association occurs on Crag and thin glaciofluvial sands that cover it.
- 2.4.8 Three soil series cover three-quarters of the land. The most extensive soil, the Newport series, belongs to the typical brown sands. The associated similar but ferruginous Cottenham series, also typical brown sands, is noticeably browner and less flinty. Lynn series, argillic brown sands, is also brown and ferruginous but the deep subsoil is clay enriched. Other component soils include the Worlington series and, near Felixstowe, Wighill and Ludford series, developed in loamy Head over London Clay outcropping from beneath the Crag.

Newport 4 Association

- 2.4.9 These soils are described as deep well-drained sandy soils. Some very acid soils with bleached subsurface horizons especially in areas under heath or in woodland. This association of deep well drained, often stony sandy soils, some of which are very acid, covers 97 km² in the Midlands, though it is much more extensive in Norfolk and Suffolk.
- 2.4.10 It occurs mainly in glaciofluvial deposits either on relatively low river terraces or on gently sloping hilltops and ridges. The main soils are typical brown sands of the Newport series and humo-ferric podzols of the Redlodge series. Newport soils are brown and slightly stony with loose sandy subsoils, but topsoil textures are often sandy loam. The Redlodge series is slightly or moderately stony with a dark, brittle, slightly cemented humus enriched subsurface horizon which underlies a paler leached layer. Sandy loam topsoils are common in Newport soils in north-east Norfolk and near Ipswich. Here aeolian silt has been mixed with the upper horizons. Where the contribution of aeolian material is greater, Hall and Wick series occur, the latter formerly described as Hall series.
- 2.4.11 Newport soils in north-west Norfolk, on the Suffolk coast and especially in Breckland are commonly sandy throughout. Redlodge soils are present in places, often where the deposits are most stony, and in Suffolk, north of Leiston, both Newport and Redlodge soils are stony. The stones are usually flints but include Carstone fragments in west Norfolk. Ebstree soils with their characteristic clay laminations occur sporadically, especially in the distal parts of the glaciofluvial gravels. They are common in east Suffolk together with Euston series and Wighill series where the sandy land abuts the chalky till.

Melford Association

- 2.4.12 Soils in this association are described as deep well drained fine loamy over clayey, coarse loamy over clayey, and fine loamy soils, some with calcareous clayey subsoils. The soils are mostly well drained and occur on the gentle and moderate slopes of valleys dissecting the plateau where the till and locally derived Head thin out over

permeable chalk or glaciofluvial deposits. There are broader spreads on level ground or moderate north-facing slopes around Bury St Edmunds, and near Sudbury and Ipswich.

- 2.4.13 Melford and Weasenham series, both argillic brown earths, are the main component soils, covering half the land. They are developed in thin fine loamy superficial drift over clayey or fine loamy chalky till, respectively. Chalk stones usually occur within a metre depth. Marlow and Barrow series, covering about a fifth of the land, are fine and coarse loamy soils with reddish clayey subsoils. They are typical paleo-argillic brown earths, containing subsoil material weathered during one or more temperate periods of the Pleistocene and incorporated into the present soils either by cryoturbation or solifluction.
- 2.4.14 Most component soils have permeable stony subsoils with many small chalk stones in an extremely calcareous well-fissured matrix resting on glaciofluvial sands and gravels or chalk. In a few places where the till is thicker, the subsoils are slowly permeable and are grey with ochreous mottles giving fine loamy over clayey Ashley soils, fine loamy Burlingham soils, both with chalky subsoils, and the deep coarse loamy Wighill series.

Ragdale Association

- 2.4.15 These soils are characterised as slowly permeable, waterlogged clayey, and fine loamy over clayey soils. Some slowly permeable calcareous clayey soils especially on slopes. It consists of clayey Ragdale series pelo-stagnogley soils, and Beccles series typical stagnogley soils, which together account for four-fifths of the land. The Ragdale and Beccles soils are developed in till which has a grey clayey matrix containing chalk stones, and some lenses of fine loamy material. Beccles soils have fine loamy upper horizons over clayey subsoils. Both series have mottled upper horizons and contain quartzite pebbles or flints. Chalk stones are usually found in the subsoil but are occasionally absent. Ashley, Hanslope and Faulkbourne soils also occur in places.

Hanslope Association

- 2.4.16 Soils in this association are described as being slowly permeable calcareous clayey soils with some slowly permeable non-calcareous clayey soils. This association primarily consists of soils in the Hanslope series and Faulkbourne series, calcareous pelosols and argillic pelosols respectively. Both the main soils are clayey to the surface, have slowly permeable subsurface horizons, but are seldom seriously waterlogged. Hanslope soils have a calcareous, chalky subsurface horizon that is normally brown but can be grey mottled. It passes below into a dense mottled substrate containing chalk stones. Faulkbourne soils are similar but have brown decalcified upper horizons.
- 2.4.17 In Essex, and parts of Suffolk, Hertfordshire and Northamptonshire, Hanslope soils cover only about half of the association with Faulkbourne, Ashley and Ragdale soils common on level sites and Stretham series on slopes and narrow spurs. Generally, inclusions of other soils are rare except in East Suffolk where small patches of Newport soils occur on lower slopes on small patches of glaciofluvial sands and Crag deposits.

Sandwich Association

- 2.4.18 Soils in the Sandwich association consist of deep calcareous and non-calcareous sandy soils on sand dunes, marine shingle, and beach related deposits. The association occupies 31 km² in Eastern England. Much of it lies between Hunstanton and Sheringham, especially at Blakeney Point, at Hemsby, north of Great Yarmouth, and at Hollesley Bay and Orford Ness, Suffolk. The Dungeness series on shingle and raw alluvial soils occupy about half of the association.

Soil auger bore data (historic surveys)

- 2.4.19 Local auger bore data was purchased from Cranfield University (Annex B). For the purpose of this predictive assessment there are 36 auger bores that are present within the Order Limits and were used to help inform the assessment.
- 2.4.20 The purchased auger bore information was used to inform the predictive assessment by providing more granular information on soil stoniness, horizons and depths; this data was then extrapolated to provide representative values for each representative soil association within the Order Limit.

2.5 Interactive limitations

- 2.5.1 From the published information and the results of the predictive ALC modelling, it has been determined that the quality of the agricultural land within the Order Limits is primarily limited by droughtiness.

Soil droughtiness

- 2.5.2 Moisture balance (MB) calculations for the ALC reference crops (winter wheat and maincrop potatoes) have been conducted for all locations as part of the predictive model. The MB value for potatoes is calculated in accordance with the ALC Guidelines (Ministry of Agriculture, Fisheries and Food, 1988) as follows: MB for potatoes = Crop Adjusted Available Water Capacity (AP) – Moisture Deficit (MD) for potatoes.
- 2.5.3 For the purpose of this predictive ALC, the MB value for potatoes for each predictive ALC sample point is derived from calculated data using (i) soil profile data for the predominant soil association, supported by extrapolated data from the local soil bore data and (ii) relevant climate data for each location interpolated from the respective 5 km squares. Soil droughtiness is then determined per location following Table 8 'Grade according to droughtiness' of the ALC Guidelines (Ministry of Agriculture, Fisheries and Food, 1988), as shown in Table 2.3.

Table 2.3 Grade according to soil droughtiness (Table 8 of the ALC Guidelines)

Grade/subgrade	Moisture Balance limits (mm)	
	Wheat	Potatoes
1	+30	+10
2	+5	-10
3a	-20	-30
3b	-50	-55
4	< -50	< -55

- 2.5.4 Across all the soil associations present the main limitation to agricultural land quality has been determined as being soil droughtiness.

Soil Wetness

- 2.5.5 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’*. The ALC grade according to soil wetness within the Order Limits is given in Table 2.4 (based on Table 6 ‘Grade According to Soil Wetness- Mineral Soils’ in the ALC Guidelines (Ministry of Agriculture, Fisheries and Food, 1988)).

Table 2.4 ALC grade according to soil wetness

WC	Texture of the top 25 cm	< 126 Field Capacity Days
I	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	3a (2)
III	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
V	Sand, Loamy Sand, Sandy Silt Loam	4
	Silt Loam, Medium Silt Clay Loam, Sandy Clay Loam	4
	Heavy Silt Clay Loam, Heavy Clay Loam	4
	Sandy Clay, Silty Clay, Clay	4
Key		
* < 27% clay; and ** > 27% clay		

- 2.5.6 The soil associations where soil wetness is the main limitation to agricultural land quality are as follows:
- Ragdale.

3. ALC Grade Distribution

- 3.1.1 The findings of the predictive ALC modelling have been used to produce an ALC map (Application Document 6.4.2.6.4) to show the predicted ALC grades on agricultural land across the Suffolk Onshore Scheme.
- 3.1.2 The areas (ha) and proportion (%) of land in each grade have been determined from the ALC map. The measurements are given in Table 3.1. The map is accurate to a scale of 1:10,000, any further enlargement could lead to inaccuracies.
- 3.1.3 As described in the ALC Guidelines, the grade or subgrade of the land is determined by the most limiting factor present. When classifying land, the overall climate and site limitations should be considered first as these can have an overriding influence on the grade.
- 3.1.4 The land has been graded and mapped without regard to present land boundaries, except where they coincide with permanent physical features. A degree of variability in physical characteristics within a discrete area is to be expected. If the area includes a small portion of land of a different grade quality, the variability can be considered as a function of the mapping scale. Thus, small, discrete areas of a different ALC grade may be identified on large-scale maps, whereas on a smaller scale map it may only be feasible to show the predominant grade.

Table 3.1 ALC distribution for Suffolk Onshore

ALC Grade	Area (ha)	Area (%)
Grade 1 (excellent)	0.00	0.00 %
Grade 2 (very good)	34.80	12.46 %
Subgrade 3a (good)	154.45	55.29 %
<i>Total Predicted BMV land</i>	<i>189.25</i>	<i>67.75 %</i>
Subgrade 3b (moderate)	44.28	15.85 %
Grade 4 (poor)	35.18	12.59 %
Grade 5 (very poor)	0.00	0.00 %
Non-agricultural	10.63	3.81 %
Total	279.33 ha	100 %

Annex A

Annex A: Predictive Data Set

Auger Bore Location				Climatic Limitations						Site Limitations						Soil and Interactive Limitations															Grades			Comments and Limiting Factors				
UID	Easting	Northing	Land Use	AAR	ATO	MDW	MDP	FCD	Climate Grade	Elevation_m	Gradient	GradientG_rate	Relief Grade	Flood Zone	Summer Flood Risk Grade	Winter Flood Risk Grade	Bedrock	Superficial Deposits	Association	Topsoil Texture	Wetness Class	Topsoil Stoniness	Soil Depth Grade	Stone Grade	Soil Wetness Grade	Moisture Balance Wheat	Moisture Balance Wheat Grade	Moisture Balance Potatoes	Moisture Balance Potatoes Grade	Erosion Grade	Predicted ALC According to Most Limiting Factor	MAFF Provisional ALC	BMV Likelihood	Comments	Limiting Factor 1	Limiting Factor 2	Limiting Factor 3	
1	638571.42	262248.34	Arable	603	1420	121	118	111	1	17.14	0.87	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.42	3a	-20.43	3a	1	3a	2	High		Droughtiness			
2	638577.83	262148.51	Arable	603	1420	121	118	111	1	16.26	2.36	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.44	3a	-20.46	3a	1	3a	2	High		Droughtiness			
3	638579.18	262047.49	Arable	603	1420	121	118	111	1	13.38	11.15	4	1	1	1	1	Crag Group - Sand	No Data	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.45	3a	-20.49	3a	1	4	2	Low		Gradient			
4	638656.72	262149.85	Arable	603	1420	121	118	111	1	12.89	2.36	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.44	3a	-20.48	3a	1	3a	2	Low		Droughtiness			
5	638664.00	262048.00	Arable	603	1420	121	118	111	1	10.89	3.91	1-3a	1	1	1	1	Crag Group - Sand	No Data	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.46	3a	-20.51	3a	1	3a	3	Low		Droughtiness			
6	638764.00	261948.00	Woodland - Plantation	603	1421	121	118	111	1	7.75	1.15	1-3a	1	2	1	1	Crag Group - Sand	Alluvium - Clay, Silt, Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.52	3a	-20.61	3a	1	3a	3	Low		Droughtiness			
7	638764.00	262048.00	Woodland - Plantation	603	1421	121	118	111	1	7.95	2.03	1-3a	1	2	1	1	Crag Group - Sand	Alluvium - Clay, Silt, Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.49	3a	-20.55	3a	1	3a	3	Low		Droughtiness			
8	638764.00	262148.00	Woodland - Plantation	603	1420	121	118	111	1	7.86	2.88	1-3a	1	2	1	1	Crag Group - Sand	Alluvium - Clay, Silt, Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.46	3a	-20.50	3a	1	3a	3	Low		Droughtiness			
9	638764.00	262248.00	Woodland - Plantation	603	1420	121	118	111	1	8.26	1.07	1-3a	1	2	1	1	Crag Group - Sand	Alluvium - Clay, Silt, Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.44	3a	-20.46	3a	1	3a	3	Low		Droughtiness			
10	638764.00	262348.00	Arable	603	1419	121	118	111	1	8.64	1.13	1-3a	1	1	1	1	Crag Group - Sand	Alluvium - Clay, Silt, Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.43	3a	-20.43	3a	1	3a	3	Low		Droughtiness			
11	638864.00	261848.00	Arable	603	1423	121	118	111	1	7.41	1.31	1-3a	1	3	1	3b	Crag Group - Sand	No Data	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.66	3a	-20.80	3a	1	3b	3	Low		Flood Risk			
12	638864.00	261948.00	Woodland	603	1422	121	118	111	1	7.50	0.96	1-3a	1	3	1	3b	Crag Group - Sand	Alluvium - Clay, Silt, Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.62	3a	-20.73	3a	1	3b	3	Low		Flood Risk			
13	638864.00	262048.00	Woodland	603	1421	121	118	111	1	7.38	1.36	1-3a	1	3	1	3b	Crag Group - Sand	Alluvium - Clay, Silt, Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.55	3a	-20.64	3a	1	3b	3	Low		Flood Risk			
14	638864.00	262148.00	Woodland - Plantation	603	1420	121	118	111	1	7.92	18.31	5	1	2	1	1	Crag Group - Sand	Alluvium - Clay, Silt, Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.48	3a	-20.53	3a	1	5	3	Low		Gradient			
15	638864.00	262248.00	Woodland	603	1420	121	118	111	1	8.27	0.83	1-3a	1	1	1	1	Crag Group - Sand	Alluvium - Clay, Silt, Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.45	3a	-20.47	3a	1	3a	3	Low		Droughtiness			
16	638864.00	262348.00	Arable	603	1419	121	118	111	1	8.90	1.11	1-3a	1	1	1	1	Crag Group - Sand	No Data	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.44	3a	-20.44	3a	1	3a	3	Low		Droughtiness			
17	638964.00	262048.00	Arable	603	1422	121	118	111	1	10.01	1.58	1-3a	1	1	1	1	Crag Group - Sand	No Data	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.61	3a	-20.71	3a	1	3a	3	Low		Droughtiness			
18	638964.00	262148.00	Arable	603	1421	121	118	111	1	10.45	2.22	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.52	3a	-20.58	3a	1	3a	3	Low		Droughtiness			
19	638964.00	262248.00	Arable	603	1420	121	118	111	1	10.91	2.28	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.48	3a	-20.51	3a	1	3a	3	Low		Droughtiness			
20	639007.00	262353.90	Arable	603	1420	121	118	111	1	12.29	2.86	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.51	3a	-20.53	3a	1	3a	3	Low		Droughtiness			
21	639064.00	262048.00	Arable	603	1422	121	118	110	1	12.78	2.70	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.66	3a	-20.77	3a	1	3a	3	Low		Droughtiness			
22	639064.00	262148.00	Arable	603	1421	121	118	111	1	14.65	2.20	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.61	3a	-20.69	3a	1	3a	3	Low		Droughtiness			
23	639064.00	262248.00	Arable	603	1421	121	118	111	1	15.47	3.33	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.58	3a	-20.64	3a	1	3a	3	Low		Droughtiness			
24	639064.00	262348.00	Arable	603	1420	121	118	111	1	14.82	3.73	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.57	3a	-20.60	3a	1	3a	3	Moderate		Droughtiness			
25	639164.00																																					

Annex A: Predictive Data Set

Auger Bore Location				Climatic Limitations						Site Limitations						Soil and Interactive Limitations													Grades			Comments and Limiting Factors						
UID	Easting	Northing	Land Use	AAR	ATO	MDW	MDP	FCD	Climate Grade	Elevation_m	Gradient	GradientG_rate	Micro Relief Grade	Flood Zone	Summer Flood Risk Grade	Winter Flood Risk Grade	Bedrock	Superficial Deposits	Association	Topsoil Texture	Wetness Class	Topsoil Stoniness	Soil Depth Grade	Stone Grade	Soil Wetness Grade	Moisture Balance Wheat	Moisture Balance Wheat Grade	Moisture Balance Potatoes	Moisture Balance Potatoes Grade	Erosion Grade	Predicted ALC According to Most Limiting Factor	MAFF Provisional ALC	BMV Likelihood	Comments	Limiting Factor 1	Limiting Factor 2	Limiting Factor 3	
60	639664.00	261548.00	Arable	605	1425	121	118	110	1	9.84	1.99	1-3a	1	1	1	1	Crag Group - Sand	No Data	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.74	3a	-21.02	3a	1	3a	2	High		Droughtiness			
61	639664.00	261848.00	Arable	604	1424	122	118	110	1	18.34	3.44	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.41	3a	-20.53	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness	
62	639664.00	261948.00	Arable	603	1423	122	118	110	1	19.41	3.58	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.44	3a	-20.55	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness	
63	639664.00	262048.00	Arable	603	1423	122	118	110	1	21.18	2.39	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.45	3a	-20.53	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness	
64	639664.00	262148.00	Arable	603	1422	122	118	110	1	23.40	1.43	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.44	3a	-20.51	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness	
65	639664.00	262248.00	Arable	603	1422	122	118	110	1	24.89	1.18	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.43	3a	-20.47	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness	
66	639664.00	262348.00	Arable	602	1421	122	118	110	1	25.65	0.80	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.42	3a	-20.43	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness	
67	639664.00	262448.00	Arable	602	1421	122	118	110	1	25.46	0.48	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.40	3a	-20.39	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness	
68	639664.00	262548.00	Arable	602	1420	121	118	110	1	25.04	0.85	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.38	3a	-20.34	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness	
69	639664.00	262648.00	Arable	602	1419	121	118	110	1	25.02	1.40	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3b	-2.35	3a	-20.29	3a	1	3b	3	High		Wetness			
70	639664.00	262748.00	Arable	601	1419	121	118	110	1	25.59	1.97	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3b	-2.31	3a	-20.22	3a	1	3b	3	High		Wetness			
71	639664.00	263148.00	Arable	601	1416	121	118	110	1	25.43	1.38	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3b	-2.09	3a	-19.88	3a	1	3b	2	High		Wetness			
72	639711.39	260806.19	Arable	608	1428	121	118	111	1	23.45	9.98	3b	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Heavy clay loam	III	10-15%	1	3a	3a	-2.13	3a	-20.46	3a	1	3b	2	High	calcareous	Wetness			
73	639753.59	260714.38	Arable	608	1428	121	118	111	1	23.41	4.66	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Heavy clay loam	III	10-15%	1	3a	3a	-2.10	3a	-20.44	3a	1	3a	2	High	calcareous	Droughtiness	Wetness	Stoniness	
74	639761.08	263109.44	Arable	601	1416	121	118	110	1	23.76	13.98	4	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.15	3a	-19.96	3a	1	4	3	High	calcareous	Gradient			
75	639763.19	261538.54	Arable	605	1425	121	118	110	1	10.48	0.68	1-3a	1	1	1	1	Crag Group - Sand	Head - Clay, Silt, Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-0.78	3a	-21.08	3a	1	3a	2	High		Droughtiness			
76	639764.00	261948.00	Arable	603	1423	122	118	110	1	22.41	1.48	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.46	3a	-20.57	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness	
77	639764.00	262048.00	Arable	603	1423	122	118	110	1	22.96	0.80	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.46	3a	-20.55	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness	
78	639764.00	262148.00	Arable	603	1422	122	118	110	1	23.99	1.19	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.46	3a	-20.52	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness	
79	639764.00	262248.00	Arable	602	1422	122	118	110	1	24.90	0.59	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.45	3a	-20.49	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness	
80	639764.00	262348.00	Arable	602	1421	122	118	110	1	25.07	1.13	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.43	3a	-20.45	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness	
81	639764.00	262448.00	Arable	602	1421	122	118	110	1	24.56	0.72	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.42	3a	-20.41	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness	
82	639764.00	262548.00	Arable	602	1420	121	118	110	1	23.72	1.35	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.39	3a	-20.36	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness	
83	639764.00	262648.00	Arable	602	1419	121	118	110	1	23.27	1.00	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton																				

Annex A: Predictive Data Set

Auger Bore Location				Climatic Limitations						Site Limitations						Soil and Interactive Limitations													Grades			Comments and Limiting Factors					
UID	Easting	Northing	Land Use	AAR	ATO	MDW	MDP	FCD	Climate Grade	Elevation_m	Gradient	GradientG_rate	Micro Relief Grade	Flood Zone	Summer Flood Risk Grade	Winter Flood Risk Grade	Bedrock	Superficial Deposits	Association	Topsoil Texture	Wetness Class	Topsoil Stoniness	Soil Depth Grade	Stone Grade	Soil Wetness Grade	Moisture Balance Wheat	Moisture Balance Wheat Grade	Moisture Balance Potatoes	Moisture Balance Potatoes Grade	Erosion Grade	Predicted ALC According to Most Limiting Factor	MAFF Provisional ALC	BMV Likelihood	Comments	Limiting Factor 1	Limiting Factor 2	Limiting Factor 3
119	640164.00	260648.00	Arable	608	1428	121	118	111	1	20.70	2.67	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	MELFORD	sandy clay loam	I	6-10%	1	2	1	12.82	2	-5.85	2	1	2	3	High		Droughtiness	Stoniness	
120	640164.00	261148.00	Arable	606	1427	121	118	110	1	22.36	0.61	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.34	3a	-20.64	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness
121	640164.00	262148.00	Woodland	603	1422	122	118	110	1	18.95	0.91	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.53	3a	-20.61	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness
122	640164.00	262248.00	Woodland	602	1422	122	118	110	1	20.36	3.03	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.52	3a	-20.57	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness
123	640164.00	262348.00	Arable	602	1421	122	118	110	1	21.21	0.75	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.51	3a	-20.54	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness
124	640164.00	262448.00	Arable	602	1421	122	118	110	1	20.99	1.07	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.49	3a	-20.49	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness
125	640164.00	262548.00	Hedgerow	601	1420	122	118	110	1	19.95	8.73	3b	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.47	3a	-20.44	3a	1	3b	2	High	calcareous	Gradient		
126	640164.00	262648.00	Arable	601	1420	122	118	110	1	17.80	2.36	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.44	3a	-20.39	3a	1	3a	2	High	calcareous	Droughtiness	Wetness	Stoniness
127	640164.00	262748.00	Arable	601	1419	122	118	110	1	17.48	0.71	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.40	3a	-20.32	3a	1	3a	2	High	calcareous	Droughtiness	Wetness	Stoniness
128	640164.00	262848.00	Arable	601	1418	121	118	110	1	18.32	1.45	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.36	3a	-20.26	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness
129	640165.96	261234.74	Arable	606	1427	121	118	110	1	21.45	0.85	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.39	3a	-20.68	3a	1	3a	2	High	calcareous	Droughtiness	Wetness	Stoniness
130	640194.71	261051.38	Arable	607	1428	121	118	110	1	22.95	3.66	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.30	3a	-20.62	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness
131	640257.05	262139.63	Arable	602	1423	122	118	110	1	16.64	1.15	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.55	3a	-20.63	3a	1	3a	3	high	calcareous	Droughtiness	Wetness	Stoniness
132	640264.00	262348.00	Arable	602	1421	122	118	110	1	19.49	1.07	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.53	3a	-20.56	3a	1	3a	2	Moderate	calcareous	Droughtiness	Wetness	Stoniness
133	640264.00	262448.00	Arable	602	1421	122	118	110	1	19.13	1.37	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.52	3a	-20.52	3a	1	3a	2	Moderate	calcareous	Droughtiness	Wetness	Stoniness
134	640264.00	262548.00	Arable	601	1420	122	118	110	1	17.22	2.67	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.49	3a	-20.47	3a	1	3a	2	Moderate	calcareous	Droughtiness	Wetness	Stoniness
135	640278.03	261243.37	Arable	606	1427	122	118	110	1	22.45	0.39	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.42	3a	-20.71	3a	1	3a	3	Moderate	calcareous	Droughtiness	Wetness	Stoniness
136	640362.19	261332.91	Arable	605	1427	122	118	110	1	22.41	4.46	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.48	3a	-20.76	3a	1	3a	2	Moderate	calcareous	Droughtiness	Wetness	Stoniness
137	640364.00	260748.00	Arable	608	1428	121	118	111	1	19.69	2.02	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	MELFORD	sandy clay loam	I	6-10%	1	2	1	12.70	2	-5.95	2	1	2	3	High		Droughtiness	Stoniness	
138	640364.00	262048.00	Arable	603	1423	122	118	110	1	13.92	1.55	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-1.00	3a	-21.22	3a	1	3a	2	Moderate		Droughtiness		
139	640364.00	262448.00	Arable	602	1421	122	118	110	1	16.81	2.58	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.55	3a	-20.55	3a	1	3a	2	Moderate	calcareous	Droughtiness	Wetness	Stoniness
140	640369.40	261267.65	Arable	605	1427	122	118	110	1	21.94	1.56	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.46	3a	-20.75	3a	1	3a	3	Moderate	calcareous	Droughtiness	Wetness	Stoniness
141	640421.87	262151.09	Arable	602	1423	122	118	110	1	14.17	0.46	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-1.00	3a	-21.19	3a	1	3a	2	Moderate		Droughtiness		
142	640447.60	262249.58	Arable	602	1422	122	118	110	1	14.50	2.34	1-3																									

Annex A: Predictive Data Set

Auger Bore Location				Climatic Limitations						Site Limitations						Soil and Interactive Limitations														Grades			Comments and Limiting Factors				
UID	Easting	Northing	Land Use	AAR	ATO	MDW	MDP	FCD	Climate Grade	Elevation_m	Gradient	GradientG_rade	Micro Relief Grade	Flood Zone	Summer Flood Risk Grade	Winter Flood Risk Grade	Bedrock	Superficial Deposits	Association	Topsoil Texture	Wetness Class	Topsoil Stoniness	Soil Depth Grade	Stone Grade	Soil Wetness Grade	Moisture Balance Wheat	Moisture Balance Wheat Grade	Moisture Balance Potatoes	Moisture Balance Potatoes Grade	Erosion Grade	Predicted ALC According to Most Limiting Factor	MAFF Provisional ALC	BMV Likelihood	Comments	Limiting Factor 1	Limiting Factor 2	Limiting Factor 3
178	640964.00	261348.00	Arable	604	1427	122	119	110	1	17.99	1.27	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	MELFORD	sandy clay loam	I	6-10%	1	2	1	12.15	2	-6.42	2	1	2	3	High		Droughtiness	Stoniness	
179	640964.00	261448.00	Arable	603	1426	122	119	110	1	20.18	1.11	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	MELFORD	Clay loam	I	6-10%	1	2	1	12.12	2	-6.43	2	1	2	3	High		Droughtiness	Stoniness	
180	640964.00	261548.00	Arable	603	1426	122	119	110	1	21.95	0.85	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.81	3a	-21.05	3a	1	3a	3	Moderate	calcareous	Droughtiness	Wetness	Stoniness
181	640964.00	261648.00	Arable	603	1426	122	119	110	1	23.22	1.90	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.83	3a	-21.05	3a	1	3a	3	Moderate	calcareous	Droughtiness	Wetness	Stoniness
182	641064.00	261048.00	Arable	604	1427	122	119	110	1	14.26	1.90	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	Clay loam	I	6-10%	1	2	1	12.17	2	-6.44	2	1	2	3	High		Droughtiness	Stoniness	
183	641064.00	261148.00	Arable	604	1427	122	119	110	1	14.74	0.31	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	sandy clay loam	I	6-10%	1	2	1	12.14	2	-6.45	2	1	2	3	High		Droughtiness	Stoniness	
184	641064.00	261248.00	Arable	604	1427	122	119	110	1	16.59	3.66	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	sandy clay loam	I	6-10%	1	2	1	12.12	2	-6.46	2	1	2	3	High		Droughtiness	Stoniness	
185	641064.00	261348.00	Arable	603	1427	122	119	110	1	18.18	1.99	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	MELFORD	sandy clay loam	I	6-10%	1	2	1	12.10	2	-6.47	2	1	2	3	High		Droughtiness	Stoniness	
186	641064.00	261448.00	Arable	603	1426	122	119	110	1	19.52	1.26	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	MELFORD	Clay loam	I	6-10%	1	2	1	12.07	2	-6.49	2	1	2	3	High		Droughtiness	Stoniness	
187	641064.00	261548.00	Arable	603	1426	122	119	110	1	21.11	1.28	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-2.86	3a	-21.10	3a	1	3a	3	High	calcareous	Droughtiness	Wetness	Stoniness
188	641164.00	260748.00	Woodland	604	1428	122	119	110	1	11.69	15.04	4	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-1.11	3a	-21.55	3a	1	4	2	Moderate		Gradient		
189	641164.00	260848.00	Arable	604	1428	122	119	110	1	12.98	1.54	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	Clay loam	I	6-10%	1	2	1	12.16	2	-6.47	2	1	2	2	High		Droughtiness	Stoniness	
190	641164.00	260948.00	Arable	604	1428	122	119	110	1	15.17	1.37	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	Clay loam	I	6-10%	1	2	1	12.13	2	-6.50	2	1	2	2	High		Droughtiness	Stoniness	
191	641164.00	261048.00	Arable	603	1428	122	119	110	1	17.11	1.03	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	Clay loam	I	6-10%	1	2	1	12.09	2	-6.52	2	1	2	3	High		Droughtiness	Stoniness	
192	641164.00	261148.00	Arable	603	1427	122	119	110	1	17.04	1.70	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	Clay loam	I	6-10%	1	2	1	12.07	2	-6.53	2	1	2	3	High		Droughtiness	Stoniness	
193	641164.00	261248.00	Arable	603	1427	122	119	110	1	15.67	0.77	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	sandy clay loam	I	6-10%	1	2	1	12.05	2	-6.53	2	1	2	3	High		Droughtiness	Stoniness	
194	641164.00	261348.00	Arable	603	1427	122	119	110	1	16.78	0.82	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	sandy clay loam	I	6-10%	1	2	1	12.03	2	-6.53	2	1	2	3	High		Droughtiness	Stoniness	
195	641164.00	261448.00	Arable	603	1426	122	119	110	1	17.62	1.52	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	MELFORD	sandy clay loam	I	6-10%	1	2	1	12.01	2	-6.54	2	1	2	3	High		Droughtiness	Stoniness	
196	641205.41	260756.98	Arable	604	1428	122	119	110	1	12.09	1.16	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-1.15	3a	-21.58	3a	1	3a	2	High		Droughtiness		
197	641208.95	260658.01	Woodland	604	1428	122	119	110	1	10.84	1.96	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-1.12	3a	-21.56	3a	1	3a	3	High		Droughtiness		
198	641248.90	260566.33	Urban	604	1428	122	119	110	1	10.90	13.04	4	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-1.14	3a	-21.58	3a	1	4	3	High		Gradient		
199	641264.00	260848.00	Arable	604	1428	122	119	110	1	13.67	2.51	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	Clay loam	I	6-10%	1	2	1	12.08	2	-6.55	2	1	2	2	High		Droughtiness	Stoniness	
200	641264.00	260948.00	Arable	603	1428	122	119	110	1	15.94	0.62	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	Clay loam	I	6-10%	1	2	1	12.05	2	-6.57	2	1	2	2	High		Droughtiness	Stoniness	
201	641264.00	261248.00	Arable	602	1427	122	119	110	1	17.46	1.97	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	MELFORD	Clay loam	I	6-10%	1	2	1	11.97	2	-6.62	2	1	2	3	High		Droughtiness	Stoniness	
202	641264.00	261348.00	Arable	602	1427	122	119	109	1	16.59																											

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Auger Bore Location				Climatic Limitations						Site Limitations						Soil and Interactive Limitations														Grades			Comments and Limiting Factors				
UID	Easting	Northing	Land Use	AAR	ATO	MDW	MDP	FCD	Climate Grade	Elevation_m	Gradient	GradientG_rade	Micro Relief Grade	Flood Zone	Summer Flood Risk Grade	Winter Flood Risk Grade	Bedrock	Superficial Deposits	Association	Topsoil Texture	Wetness Class	Topsoil Stoniness	Soil Depth Grade	Stone Grade	Soil Wetness Grade	Moisture Balance Wheat	Moisture Balance Wheat Grade	Moisture Balance Potatoes	Moisture Balance Potatoes Grade	Erosion Grade	Predicted ALC According to Most Limiting Factor	MAFF Provisional ALC	BMV Likelihood	Comments	Limiting Factor 1	Limiting Factor 2	Limiting Factor 3
237	641664.00	261548.00	Arable	600	1427	122	119	109	1	22.69	0.99	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-3.35	3a	-21.64	3a	1	3a	2	High	calcareous	Droughtiness	Wetness	Stoniness
238	641668.64	260515.99	Arable	602	1428	122	119	109	1	14.23	6.26	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-1.53	3a	-21.98	3a	1	3a	3	High		Droughtiness		
239	641697.60	261353.81	Woodland	600	1427	122	119	109	1	22.24	4.42	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-3.29	3a	-21.59	3a	1	3a	2	High	calcareous	Droughtiness	Wetness	Stoniness
240	641728.94	261258.85	Woodland	600	1427	122	119	109	1	22.79	0.97	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-3.29	3a	-21.59	3a	1	3a	2	High	calcareous	Droughtiness	Wetness	Stoniness
241	641755.36	261148.37	Arable	600	1428	122	119	109	1	22.93	1.62	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-3.29	3a	-21.60	3a	1	3a	2	High	calcareous	Droughtiness	Wetness	Stoniness
242	641764.00	261248.00	Woodland	600	1427	122	119	109	1	23.07	1.21	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-3.31	3a	-21.61	3a	1	3a	2	High	calcareous	Droughtiness	Wetness	Stoniness
243	641764.00	261448.00	Arable	600	1427	122	119	109	1	22.80	0.73	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-3.39	3a	-21.69	3a	1	3a	2	High	calcareous	Droughtiness	Wetness	Stoniness
244	641764.00	261548.00	Arable	599	1427	123	119	109	1	22.93	0.36	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-3.42	3a	-21.72	3a	1	3a	2	High	calcareous	Droughtiness	Wetness	Stoniness
245	641765.57	260537.54	Arable	602	1428	122	119	109	1	14.81	1.56	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Loamy medium sand	I	6-10%	1	2	1	-1.63	3a	-22.08	3a	1	3a	3	High		Droughtiness		
246	641802.41	261350.47	Woodland	600	1427	122	119	109	1	23.04	1.75	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-3.37	3a	-21.67	3a	1	3a	2	High	calcareous	Droughtiness	Wetness	Stoniness
247	641838.39	261314.82	Woodland	600	1427	122	119	109	1	23.29	1.65	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-3.40	3a	-21.70	3a	1	3a	2	High	calcareous	Droughtiness	Wetness	Stoniness
248	641863.74	260550.74	Arable	601	1429	122	119	109	1	15.58	1.12	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Loamy medium sand	I	6-10%	1	2	1	-1.74	3a	-22.19	3a	1	3a	3	High		Droughtiness		
249	641864.00	261448.00	Arable	599	1427	123	119	109	1	23.35	1.55	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-3.47	3a	-21.77	3a	1	3a	2	High	calcareous	Droughtiness	Wetness	Stoniness
250	641890.61	259356.59	Arable	600	1430	123	120	109	1	9.15	2.61	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-2.00	3a	-22.55	3a	1	3a	4	High		Droughtiness		
251	641911.45	261383.11	Arable	599	1427	123	120	109	1	23.47	1.70	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-3.49	3a	-21.80	3a	1	3a	2	Moderate	calcareous	Droughtiness	Wetness	Stoniness
252	641920.88	261364.17	Urban	599	1427	123	120	109	1	23.72	4.92	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-3.50	3a	-21.81	3a	1	3a	2	Moderate	calcareous	Droughtiness	Wetness	Stoniness
253	641964.00	260448.00	Arable	600	1429	123	120	109	1	18.01	0.95	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	Loamy medium sand	I	6-10%	1	2	1	-35.48	3b	-52.27	3b	1	3b	4	Moderate		Droughtiness		
254	641964.00	260548.00	Arable	600	1429	123	120	109	1	16.70	1.11	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Loamy medium sand	I	6-10%	1	2	1	-1.85	3a	-22.32	3a	1	3a	3	Moderate		Droughtiness		
255	641964.00	261448.00	Arable	599	1427	123	120	108	1	23.34	0.57	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-3.56	3a	-21.87	3a	1	3a	2	Moderate	calcareous	Droughtiness	Wetness	Stoniness
256	641968.75	259300.03	Arable	600	1430	123	120	109	1	6.36	6.24	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-2.10	3a	-22.66	3a	1	3a	4	Moderate		Droughtiness		
257	642012.23	259270.93	Arable	600	1430	123	120	109	1	5.13	4.82	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-2.15	3a	-22.72	3a	1	3a	4	Moderate		Droughtiness		
258	642015.83	259339.59	Arable	600	1430	123	120	109	1	6.66	3.99	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-2.13	3a	-22.69	3a	1	3a	4	Moderate		Droughtiness		
259	642020.08	261351.57	Urban	599	1428	123	120	108	1	23.61	2.51	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	RAGDALE	Clay/clay loam	III	10-15%	1	3a	3a	-3.60	3a	-21.92	3a	1	3a	2	Moderate	calcareous	Droughtiness	Wetness	Stoniness
260	642064.00	260248.00	Arable	599	1430	123	120	109	1	22.18	1.51	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	MELFORD	Loamy medium sand	I	6-10%	1	2													

Annex A: Predictive Data Set

Auger Bore Location				Climatic Limitations						Site Limitations						Soil and Interactive Limitations															Grades			Comments and Limiting Factors				
UID	Easting	Northing	Land Use	AAR	ATO	MDW	MDP	FCD	Climate Grade	Elevation_m	Gradient	GradientG_rate	Micro Relief Grade	Flood Zone	Summer Flood Risk Grade	Winter Flood Risk Grade	Bedrock	Superficial Deposits	Association	Topsoil Texture	Wetness Class	Topsoil Stoniness	Soil Depth Grade	Stone Grade	Soil Wetness Grade	Moisture Balance Wheat	Moisture Balance Wheat Grade	Moisture Balance Potatoes	Moisture Balance Potatoes Grade	Erosion Grade	Predicted ALC According to Most Limiting Factor	MAFF Provisional ALC	BMV Likelihood	Comments	Limiting Factor 1	Limiting Factor 2	Limiting Factor 3	
296	642564.28	261337.42	Arable	597	1428	123	120	108	1	11.03	2.66	1-3a	1	1	1	1	Crag Group - Sand	No Data	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-2.41	3a	-22.87	3a	1	3a	2	Moderate		Droughtiness			
297	642611.95	260020.21	Arable	597	1431	123	120	108	1	23.39	1.12	1-3a	1	1	1	1	Crag Group - Sand	Lowesoft Formation - Diamicton	MELFORD	Loamy medium sand	I	6-10%	1	2	1	-36.18	3b	-53.04	3b	1	3b	3	Moderate		Droughtiness			
298	642630.47	259837.16	Arable	597	1431	123	120	108	1	20.40	2.53	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Diamicton	MELFORD	Clay loam	I	6-10%	1	2	1	-36.23	3b	-53.10	3b	1	3b	4	Moderate		Droughtiness			
299	642655.22	261391.54	Arable	597	1429	123	120	108	1	11.16	1.95	1-3a	1	1	1	1	Crag Group - Sand	No Data	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-2.48	3a	-22.93	3a	1	3a	3	Moderate		Droughtiness			
300	642664.00	259748.00	Arable	596	1431	123	120	108	1	17.56	2.30	1-3a	1	1	1	1	Memeber - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	Clay loam	I	6-10%	1	2	1	-36.27	3b	-53.15	3b	1	3b	4	Moderate		Droughtiness			
301	642664.16	261342.32	Arable	597	1429	123	120	108	1	9.62	4.42	1-3a	1	1	1	1	Crag Group - Sand	No Data	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-2.49	3a	-22.94	3a	1	3a	3	Moderate		Droughtiness			
302	642677.63	259898.39	Arable	596	1431	123	120	108	1	22.35	0.91	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Diamicton	MELFORD	Clay loam	I	6-10%	1	2	1	-36.26	3b	-53.13	3b	1	3b	3	Moderate		Droughtiness			
303	642742.20	259666.18	Arable	596	1431	123	121	107	1	13.24	1.78	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-2.75	3a	-23.33	3a	1	3a	4	Moderate		Droughtiness			
304	642764.00	259748.00	Arable	596	1431	123	121	107	1	17.03	2.71	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	Clay loam	I	6-10%	1	2	1	-36.35	3b	-53.23	3b	1	3b	4	Moderate		Droughtiness			
305	642764.00	259848.00	Arable	596	1431	123	121	107	1	20.15	2.24	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Diamicton	MELFORD	Clay loam	I	6-10%	1	2	1	-36.33	3b	-53.21	3b	1	3b	3	Moderate		Droughtiness			
306	642764.00	261348.00	Arable	596	1429	123	120	108	1	7.80	3.61	1-3a	1	3	1	3b	Crag Group - Sand	No Data	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-2.56	3a	-23.02	3a	1	3b	3	Moderate		Flood Risk			
307	642765.57	259657.12	Arable	596	1431	123	121	107	1	12.95	2.16	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-2.77	3a	-23.35	3a	1	3a	4	Moderate		Droughtiness			
308	642823.69	259629.68	Arable	596	1432	124	121	107	1	12.78	1.71	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	Clay loam	I	6-10%	1	2	1	-36.42	3b	-53.30	3b	1	3b	4	Moderate		Droughtiness			
309	642850.17	259697.26	Arable	596	1432	124	121	107	1	13.81	2.07	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	MELFORD	Clay loam	I	6-10%	1	2	1	-36.43	3b	-53.31	3b	1	3b	4	Moderate		Droughtiness			
310	642964.00	259648.00	Arable	595	1432	124	121	107	1	19.87	1.98	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Diamicton	MELFORD	Clay loam	I	6-10%	1	2	1	-36.54	3b	-53.44	3b	1	3b	4	Moderate		Droughtiness			
311	643024.43	259486.60	Hedgerow	595	1432	124	121	107	1	16.94	2.12	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Diamicton	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.10	3a	-23.72	3a	1	3a	4	Moderate		Droughtiness			
312	643064.00	258548.00	Arable	594	1433	124	121	107	1	3.60	5.40	1-3a	1	2	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.33	3b	-58.55	4	1	4	4	Non-agricultural		Droughtiness			
313	643064.00	258648.00	Arable	595	1433	124	121	107	1	8.48	4.68	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.29	3b	-58.49	4	1	4	Non-Agri	Non-agricultural		Droughtiness			
314	643064.00	259548.00	Arable	595	1432	124	121	107	1	18.97	4.10	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Diamicton	MELFORD	Clay loam	I	6-10%	1	2	1	-36.72	3b	-53.64	3b	1	3b	4	Low		Droughtiness			
315	643110.10	259464.96	Hedgerow	594	1433	124	121	107	1	17.13	3.24	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Diamicton	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.20	3a	-23.84	3a	1	3a	4	Low		Droughtiness			
316	643153.66	259503.72	Arable	594	1433	124	121	107	1	17.19	0.65	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Diamicton	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.22	3a	-23.86	3a	1	3a	4	Low		Droughtiness			
317	643164.00	258148.00	Woodland	594	1434	124	122	107	1	6.07	5.10	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.59	3b	-58.85	4	1	Non-Agri	Non-Agri	Non-agricultural					
318	643164.00	258248.00	Woodland	594	1434	124	122	107	1	9.12	5.89	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.53	3b	-58.78	4	1	Non-Agri	4	Non-agricultural					
319	643164.00	258348.00	Arable	594	1434	124	122	107	1	7.05	10.59	3b	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.48	3b	-58.72	4	1	4							

Annex A: Predictive Data Set

Auger Bore Location				Climatic Limitations						Site Limitations						Soil and Interactive Limitations														Grades			Comments and Limiting Factors					
UID	Easting	Northing	Land Use	AAR	ATO	MDW	MDP	FCD	Climate Grade	Elevation_m	Gradient	GradientG_rate	Micro Relief Grade	Flood Zone	Summer Flood Risk Grade	Winter Flood Risk Grade	Bedrock	Superficial Deposits	Association	Topsoil Texture	Wetness Class	Topsoil Stoniness	Soil Depth Grade	Stone Grade	Soil Wetness Grade	Moisture Balance Wheat	Moisture Balance Wheat Grade	Moisture Balance Potatoes	Moisture Balance Potatoes Grade	Erosion Grade	Predicted ALC According to Most Limiting Factor	MAFF Provisional ALC	BMV Likelihood	Comments	Limiting Factor 1	Limiting Factor 2	Limiting Factor 3	
349	643462.16	259412.62	Arable	594	1433	124	121	107	1	17.63	2.70	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.37	3a	-24.00	3a	1	3a	4	Low		Droughtiness			
350	643464.00	258148.00	Woodland	593	1434	125	122	107	1	7.85	5.34	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.71	3b	-59.00	4	1	Non-Agri	Non-Agri	Non-agricultural					
351	643464.00	258248.00	Arable	593	1434	124	122	107	1	12.40	1.16	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.66	3b	-58.93	4	1	Non-Agri	Non-Agri	Non-agricultural					
352	643464.00	258348.00	Arable	593	1434	124	122	107	1	11.23	1.95	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.64	3b	-58.90	4	1	4	Non-Agri	Non-agricultural		Droughtiness			
353	643464.00	258448.00	Arable	593	1434	124	122	107	1	12.01	0.79	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.61	3b	-58.87	4	1	4	Non-Agri	Non-agricultural		Droughtiness			
354	643464.00	259048.00	Arable	593	1433	124	121	107	1	14.58	1.94	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Diamicton	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.46	3a	-24.13	3a	1	3a	4	Moderate		Droughtiness			
355	643464.00	259248.00	Arable	594	1433	124	121	107	1	14.27	1.31	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.40	3a	-24.05	3a	1	3a	4	Moderate		Droughtiness			
356	643468.28	259148.94	Arable	594	1433	124	121	107	1	13.68	0.51	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.43	3a	-24.09	3a	1	3a	4	Moderate		Droughtiness			
357	643487.85	258942.21	Arable	593	1434	124	121	107	1	16.02	0.69	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Diamicton	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.50	3a	-24.18	3a	1	3a	4	Moderate		Droughtiness			
358	643489.61	259361.40	Arable	594	1433	124	121	106	1	16.02	1.85	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.39	3a	-24.03	3a	1	3a	4	Moderate		Droughtiness			
359	643520.91	258701.86	Hedgerow	593	1434	124	122	106	1	17.36	3.15	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.50	3b	-58.70	4	1	4	4	Moderate		Droughtiness			
360	643564.00	258248.00	Arable	593	1434	125	122	107	1	9.76	3.60	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.71	3b	-58.98	4	1	4	Non-Agri	Non-agricultural		Droughtiness			
361	643564.00	258348.00	Arable	593	1435	125	122	106	1	9.78	5.94	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.70	3b	-58.98	4	1	4	Non-Agri	Non-agricultural		Droughtiness			
362	643564.00	258448.00	Arable	593	1435	124	122	106	1	11.62	0.79	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.69	3b	-58.97	4	1	4	Non-Agri	Non-agricultural		Droughtiness			
363	643564.00	259248.00	Arable	594	1433	124	121	106	1	15.53	1.94	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.44	3a	-24.08	3a	1	3a	4	Low		Droughtiness			
364	643570.20	258897.36	Arable	593	1434	124	121	106	1	17.43	2.01	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.54	3a	-24.22	3a	1	3a	4	Low		Droughtiness			
365	643602.60	258645.96	Hedgerow	593	1434	124	122	106	1	15.55	4.94	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.56	3b	-58.78	4	1	4	4	Low		Droughtiness			
366	643653.44	259203.28	Arable	593	1434	124	121	106	1	15.62	0.65	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.47	3a	-24.11	3a	1	3a	4	Low		Droughtiness			
367	643664.00	258248.00	Arable	593	1435	125	122	106	1	4.12	1.35	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.78	3b	-59.08	4	1	4	Non-Agri	Non-agricultural		Droughtiness			
368	643664.00	258348.00	Arable	592	1435	125	122	106	1	8.61	9.37	3b	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.75	3b	-59.04	4	1	4	Non-Agri	Non-agricultural		Droughtiness			
369	643667.01	258872.00	Arable	593	1434	124	121	106	1	18.08	1.05	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.57	3a	-24.25	3a	1	3a	4	Low		Droughtiness			
370	643764.00	258248.00	Arable	592	1435	125	122	106	1	5.93	7.42	3b	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-40.86	3b	-59.17	4	1	4	Non-Agri	Non-agricultural		Droughtiness			
371	643764.00	258848.00	Arable	593	1434	124	121	106	1	18.02	0.60	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.61	3a	-24.30	3a	1	3a	4	Low		Droughtiness			
372	643764.00	259148.00	Arable	593	1434	124	121	106	1	17.33	1.30	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand																					

Annex A: Predictive Data Set

Auger Bore Location				Climatic Limitations						Site Limitations						Soil and Interactive Limitations														Grades			Comments and Limiting Factors					
UID	Easting	Northing	Land Use	AAR	ATO	MDW	MDP	FCD	Climate Grade	Elevation_m	Gradient	GradientG_rate	Micro Relief Grade	Flood Zone	Summer Flood Risk Grade	Winter Flood Risk Grade	Bedrock	Superficial Deposits	Association	Topsoil Texture	Wetness Class	Topsoil Stoniness	Soil Depth Grade	Stone Grade	Soil Wetness Grade	Moisture Balance Wheat	Moisture Balance Wheat Grade	Moisture Balance Potatoes	Moisture Balance Potatoes Grade	Erosion Grade	Predicted ALC According to Most Limiting Factor	MAFF Provisional ALC	BMV Likelihood	Comments	Limiting Factor 1	Limiting Factor 2	Limiting Factor 3	
403	645064.00	258548.00	Arable	591	1435	125	122	106	1	19.87	1.86	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.95	3a	-24.70	3a	1	3a	4	Low		Droughtiness			
404	645164.00	258548.00	Arable	591	1435	125	122	106	1	19.61	0.38	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-3.97	3a	-24.73	3a	1	3a	4	Low		Droughtiness			
405	645258.23	258514.51	Arable	591	1435	125	122	106	1	18.85	0.94	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-4.02	3a	-24.80	3a	1	3a	4	Low		Droughtiness			
406	645313.31	258389.28	Arable	591	1436	125	122	106	1	17.20	4.24	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Diamicton	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-4.14	3a	-24.95	3a	1	3a	4	Low		Droughtiness			
407	645334.38	258449.70	Arable	591	1436	125	122	106	1	18.71	0.66	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 4	Sandy loam/Loamy sand	I	6-10%	1	2	1	-4.09	3a	-24.89	3a	1	3a	4	Low		Droughtiness			
408	645374.33	258358.03	Woodland	590	1436	125	122	106	1	17.94	2.09	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.08	3b	-59.41	4	1	4	Non-Agri	Low		Droughtiness			
409	645464.00	258348.00	Woodland	590	1436	125	122	106	1	17.99	4.71	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.12	3b	-59.46	4	1	4	4	Low		Droughtiness			
410	645525.21	258444.19	Arable	590	1436	125	122	106	1	18.45	8.68	3b	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.05	3b	-59.38	4	1	4	4	Low		Droughtiness			
411	645554.44	258413.04	Arable	590	1436	125	122	106	1	18.25	4.62	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.09	3b	-59.43	4	1	4	4	Low		Droughtiness			
412	645559.25	258378.44	Woodland	590	1436	125	122	106	1	17.59	1.47	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.12	3b	-59.47	4	1	4	4	Low		Droughtiness			
413	645594.70	258293.47	Arable	590	1436	125	122	105	1	15.79	4.35	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.21	3b	-59.58	4	1	4	Non-Agri	Low		Droughtiness			
414	645601.88	258316.47	Arable	590	1436	125	122	105	1	15.76	4.57	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.19	3b	-59.56	4	1	4	4	Low		Droughtiness			
415	645653.64	258411.48	Arable	590	1436	125	122	105	1	16.49	1.64	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.13	3b	-59.48	4	1	4	4	Low		Droughtiness			
416	645753.62	258413.26	Arable	590	1436	125	122	105	1	13.25	1.91	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.16	3b	-59.52	4	1	4	4	Low		Droughtiness			
417	645853.59	258410.73	Arable	589	1436	125	122	105	1	12.59	1.74	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.21	3b	-59.58	4	1	4	4	Low		Droughtiness			
418	645952.13	258427.73	Arable	589	1436	125	122	105	1	10.44	2.64	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	Lowesoft Formation - Sand and Gravel	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.24	3b	-59.62	4	1	4	4	Low		Droughtiness			
419	645988.89	258520.73	Arable	589	1436	125	122	105	1	6.07	2.46	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.18	3b	-59.55	4	1	4	4	Low		Droughtiness			
420	646029.42	258612.14	Arable	589	1436	125	122	105	1	3.68	5.06	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.14	3b	-59.49	4	1	4	4	Low		Droughtiness			
421	646064.00	258448.00	Arable	589	1436	125	122	105	1	7.61	3.39	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.27	3b	-59.67	4	1	4	4	Low		Droughtiness			
422	646064.00	258548.00	Arable	589	1436	125	122	105	1	3.39	2.36	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.20	3b	-59.58	4	1	4	4	Low		Droughtiness			
423	646103.63	258635.59	Arable	589	1436	125	122	105	1	1.91	3.74	1-3a	1	2	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.16	3b	-59.52	4	1	4	Non-Agri	Low		Droughtiness			
424	646164.00	258348.00	Arable	588	1437	125	123	105	1	5.74	2.70	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.39	3b	-59.83	4	1	4	4	Low		Droughtiness			
425	646164.00	258448.00	Woodland	588	1437	125	123	105	1	4.92	1.67	1-3a	1	1	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.32	3b	-59.74	4	1	4	4	Low		Droughtiness			
426	646207.18	258589.85	Arable	589	1436	125	122	105	1	1.76	1.06	1-3a	1	2	1	1	Chillesford Church Sand Memeber - Sand	No Data	NEWPORT 2	Sandy loam/loamy sand	I	6-10%	1	2	1	-41.24	3b	-59.64	4	1</								

Annex B

Annex B: Cranfield University Auger Bore Logs

AUGERID	EASTING	NORTHING	UPPER_DEPT	LOWER_DEPT	HORIZON_NO	TEXTURE	MATRIX_COL	MOTTLE_ABU	MOTTLE_COL	SUB_MOTTLE	SUB_MOTT_1	STONE_ABUN	STONE_SIZE	STONE_TYPE	CARBONATE
A2-TM36/932271-01	639320	262710	0	28	Ap	humose clay loam	10YR4/3					few	medium	flint	non-calcareous
A2-TM36/932271-01	639320	262710	28	40	Bw(g)	humose sandy clay	10YR5/6	few	25Y6/2	few	10YR5/8	few	medium	flint	non-calcareous
A2-TM36/932271-01	639320	262710	40	76	Btg	humose clay	25Y5/4	many	5Y6/2	common	10YR5/8	few	medium	flint	non-calcareous
A2-TM36/932271-01	639320	262710	76	80	Bg	humose clay	25Y6/4	many	5Y7/2	many	10YR6/8	few	very small	chalk	calcareous
A2-TM46/016269-01	640160	262690	0	29	Ap	humose sandy clay loam	10YR3/2					few	medium	flint	non-calcareous
A2-TM46/016269-01	640160	262690	29	100	Bw	humose sandy clay loam	10YR5/6					few	small	flint	non-calcareous
A2-TM46/000250-01	640000	262500	0	25	Ap	clay	25Y3/3					few	medium	flint	calcareous
A2-TM46/000250-01	640000	262500	25	39	Bw	clay	10YR6/6					few	small	flint	calcareous
A2-TM46/000250-01	640000	262500	39	49	Btg	clay	25Y5/4	many	5Y6/3	common	10YR6/8	few	small	flint	calcareous
A2-TM46/000250-01	640000	262500	49	80	Bg	clay	25Y5/4	many	5Y6/2	many	10YR6/8	few	very small	flint	calcareous
A2-TM36/981244-01	639810	262440	0	27	Ap	humose clay loam	25Y3/3					few	medium	flint	calcareous
A2-TM36/981244-01	639810	262440	27	39	Bw(g)	humose sandy clay	25Y5/6	common	10YR6/8	common	10YR6/3	few	medium	flint	calcareous
A2-TM36/981244-01	639810	262440	39	65	Btg	humose clay	25Y5/4	many	5Y6/3	many	10YR5/8	few	small	flint	calcareous
A2-TM36/981244-01	639810	262440	65	80	Bg	humose clay	25Y5/4	many	5Y6/2	many	10YR5/8	few	very small	chalk	very calcareous
A2-TM36/950250-01	639500	262500	0	28	Ap	clay loam	25Y4/3					few	medium	flint	calcareous
A2-TM36/950250-01	639500	262500	28	48	Btg	clay	10YR6/7	common	10YR5/8	common	25Y6/3	few	medium	flint	calcareous
A2-TM36/950250-01	639500	262500	48	80	Bg	clay	25Y6/4	many	5Y6/3	many	10YR5/8	few	very small	chalk	calcareous
A2-TM36/978210-01	639780	262100	0	28	Ap	humose clay	25Y4/3					few	medium	flint	non-calcareous
A2-TM36/978210-01	639780	262100	28	40	Bw	humose clay	10YR5/6					few	very small	chalk	calcareous
A2-TM36/978210-01	639780	262100	40	60	Bw(g)	humose clay	25Y5/4	common	5Y6/3			few	very small	chalk	calcareous
A2-TM36/978210-01	639780	262100	60	80	Bg	humose clay	25Y5/4	common	10YR5/6	many	5Y6/2	few	very small	chalk	very calcareous
A2-TM46/050200-01	640500	262000	0	30	Ap	sandy loam	25Y4/3					few	medium	flint	calcareous
A2-TM46/050200-01	640500	262000	30	58	Bw1	sandy loam	10YR5/6					few	small	flint	non-calcareous
A2-TM46/050200-01	640500	262000	58	80	Bw2	sandy loam	10YR5/8								non-calcareous
A2-TM46/050200-01	640500	262000	80	100	Bw3	fine sandy loam	10YR5/8								non-calcareous
A2-TM46/068135-01	640680	261350	0	30	Ap	humose clay loam	10YR4/3					few	medium	flint	non-calcareous
A2-TM46/068135-01	640680	261350	30	65	Bt	humose clay	10YR5/6					few	medium	flint	non-calcareous
A2-TM46/068135-01	640680	261350	65	80	Bw	humose clay	10YR5/6					few	very small	chalk	calcareous
A2-TM46/018124-01	640180	261240	0	25	Ap	humose clay loam	25Y4/4					few	medium	flint	calcareous
A2-TM46/018124-01	640180	261240	25	38	Btg	humose clay	25Y5/5	common	5Y6/3	common	10YR6/6	few	medium	flint	non-calcareous
A2-TM46/018124-01	640180	261240	38	80	Bg	humose clay	25Y5/3	many	5Y6/2	common	10YR6/6	few	very small	flint	calcareous
A2-TM46/038080-01	640380	260800	0	32	Ap	humose sandy clay loam	10YR4/3					few	medium	flint	non-calcareous
A2-TM46/038080-01	640380	260800	32	85	Bt	humose clay	10YR5/8					few	medium	flint	non-calcareous
A2-TM46/038080-01	640380	260800	85	100	BC	humose clay loam	10YR5/4					common	very small	chalk	very calcareous
A2-TM46/000050-01	640000	260500	0	33	Ap	humose sandy clay loam	10YR4/3					few	small	flint	non-calcareous
A2-TM46/000050-01	640000	260500	33	54	Bw(g)	humose sandy clay loam	10YR5/5	common	25Y7/4	common	10YR5/8	few	small	flint	non-calcareous
A2-TM46/000050-01	640000	260500	54	105	Bt(g)	humose clay	10YR5/7	common	25Y7/4			few	small	flint	non-calcareous
A2-TM46/000050-01	640000	260500	105	110	Bw	humose clay	25Y5/4					few	very small	chalk	calcareous
A2-TM46/100150-01	641000	261500	0	32	Ap	clay loam	25Y4/3					few	medium	flint	non-calcareous
A2-TM46/100150-01	641000	261500	32	68	Btg	clay	10YR5/4	common	5Y5/2	common	75YR5/8	few	small	flint	non-calcareous
A2-TM46/100150-01	641000	261500	68	80	Bg	clay	25Y5/4	many	5Y6/2	common	10YR5/8	few	very small	chalk	calcareous
A2-TM46/118132-01	641180	261320	0	30	Ap	humose sandy clay loam	10YR4/3					few	medium	flint	non-calcareous
A2-TM46/118132-01	641180	261320	30	67	Bw1	humose sandy clay loam	10YR4/5					few	medium	flint	non-calcareous
A2-TM46/118132-01	641180	261320	67	75	Bw2	humose sandy loam	10YR5/8					few	medium	flint	non-calcareous
A2-TM46/118132-01	641180	261320	75	100	2Bw	humose loamy sand	10YR6/8					few	small	flint	non-calcareous
A2-TM46/127120-01	641270	261200	0	29	Ap	humose clay loam	25Y4/3					few	medium	flint	non-calcareous
A2-TM46/127120-01	641270	261200	29	48	Bt	humose clay	25Y5/5	common	10YR5/8			few	medium	flint	non-calcareous
A2-TM46/127120-01	641270	261200	48	80	Bg	humose clay	25Y5/4	common	25Y6/2			common	small	chalk	very calcareous
A2-TM46/150150-01	641500	261500	0	30	Ap	clay	25Y4/4					few	medium	flint	calcareous
A2-TM46/150150-01	641500	261500	30	40	Btg	clay	25Y5/5	common	25Y5/2	common	10YR5/8	few	medium	flint	calcareous
A2-TM46/150150-01	641500	261500	40	62	Bg	clay	25Y5/6	many	5Y6/2	common	10YR5/8	few	very small	chalk	calcareous
A2-TM46/150150-01	641500	261500	62	80	BCg	clay	5Y7/2	many	25Y6/4	common	10YR5/8	common	very small	chalk	very calcareous
A2-TM46/162119-01	641620	261190	0	30	Ap	humose clay	25Y4/4					few	medium	flint	non-calcareous
A2-TM46/162119-01	641620	261190	30	56	Btg	humose clay	25Y5/4	many	5Y6/3	many	10YR6/8	few	medium	flint	non-calcareous
A2-TM46/162119-01	641620	261190	56	80	Bg	humose clay	25Y6/4	many	5Y6/2	common	10YR5/8	few	very small	chalk	calcareous
A2-TM46/150100-01	641500	261000	0	28	Ap	clay	25Y4/4					few	small	flint	calcareous
A2-TM46/150100-01	641500	261000	28	58	Bt(g)	clay	25Y5/4	common	10YR5/8	common	25Y6/4	few	small	flint	non-calcareous
A2-TM46/150100-01	641500	261000	58	70	Bg	clay	25Y5/4	common	25Y6/3	common	10YR5/6	common	very small	chalk	calcareous

Annex B: Cranfield University Auger Bore Logs

AUGERID	EASTING	NORTHING	UPPER_DEPT	LOWER_DEPT	HORIZON_NO	TEXTURE	MATRIX_COL	MOTTLE_ABU	MOTTLE_COL	SUB_MOTTLE	SUB_MOTT_1	STONE_ABUN	STONE_SIZE	STONE_TYPE	CARBONATE
A2-TM46/200150-01	642000	261500	0	35	Ap	clay loam	25Y4/3					few	medium	flint	non-calcareous
A2-TM46/200150-01	642000	261500	35	40	Bw(g)	clay	10YR5/4	many				few	medium	flint	non-calcareous
A2-TM46/200150-01	642000	261500	40	52	Btg	clay	25Y5/4	common				few	medium	flint	non-calcareous
A2-TM46/200150-01	642000	261500	52	80	Bg	clay	25Y6/4	many				few	very small	chalk	calcareous
A2-TM46/233137-01	642330	261370	0	30	Ap	humose sandy loam	10YR4/3					few	medium	flint	non-calcareous
A2-TM46/233137-01	642330	261370	30	103	Bw1	humose sandy loam	10YR4/5					few	medium	flint	non-calcareous
A2-TM46/233137-01	642330	261370	103	110	Bw2	humose loamy sand	10YR4/5					few	medium	flint	non-calcareous
A2-TM46/268133-01	642680	261330	0	38	Ap	humose loamy sand	10YR4/4					few	small	flint	non-calcareous
A2-TM46/268133-01	642680	261330	38	62	Bw1	humose loamy sand	10YR5/8					few	small	flint	non-calcareous
A2-TM46/268133-01	642680	261330	62	100	Bw2	humose sand	10YR6/7								non-calcareous
A2-TM46/220073-01	642200	260730	0	30	Ap	humose sandy loam	10YR4/3					few	medium	flint	non-calcareous
A2-TM46/220073-01	642200	260730	30	70	Bw1	humose sandy loam	10YR4/5					few	small	flint	non-calcareous
A2-TM46/220073-01	642200	260730	70	88	Bw2	humose loamy sand	10YR5/6					few	small	flint	non-calcareous
A2-TM46/220073-01	642200	260730	88	105	Bw3	humose sandy loam	10YR6/8								non-calcareous
A2-TM46/220073-01	642200	260730	105	110	2Bt	humose sandy clay	10YR5/8	common		10YR6/6					non-calcareous
A1-TM46/210070-01	642100	260700	0	28		sandy loam	75YR4/4					common	medium	flint	non-calcareous
A1-TM46/210070-01	642100	260700	28	55		loamy sand	75YR4/4								non-calcareous
A1-TM46/210070-01	642100	260700	55	85		loamy sand	75YR5/6								non-calcareous
A1-TM46/210070-01	642100	260700	85	100		loamy coarse sand	75YR5/6								non-calcareous
A2-TM46/200050-01	642000	260500	0	32	Ap	sandy loam	10YR4/3					few	medium	flint	non-calcareous
A2-TM46/200050-01	642000	260500	32	60	Bw	loamy sand	10YR4/4					few	medium	flint	non-calcareous
A2-TM46/200050-01	642000	260500	60	78	Bh1	loamy sand	10YR3/4					few	medium	flint	non-calcareous
A2-TM46/200050-01	642000	260500	78	105	Bh2	humose loamy sand	5YR2/1					few	medium	flint	non-calcareous
A2-TM46/152052-01	641520	260520	0	35	Ap	sandy loam	10YR4/3					few	medium	flint	non-calcareous
A2-TM46/152052-01	641520	260520	35	60	Bw1	sandy loam	10YR4/3					few	medium	flint	non-calcareous
A2-TM46/152052-01	641520	260520	60	92	Bw2	sandy loam	10YR4/4					few	medium	flint	non-calcareous
A2-TM46/152052-01	641520	260520	92	120	Bw3	loamy sand	10YR6/6					few	medium	flint	non-calcareous
A2-TM46/250000-01	642500	260000	0	40	Ap	sandy loam	10YR5/5					few	medium	flint	non-calcareous
A2-TM46/250000-01	642500	260000	40	65	Bw1	loamy sand	10YR5/6					few	medium	flint	non-calcareous
A2-TM46/250000-01	642500	260000	65	78	Bw2	loamy sand	10YR5/7					common	medium	flint	non-calcareous
A2-TM46/250000-01	642500	260000	78	90	Bt1	sandy loam	10YR5/8					common	medium	flint	non-calcareous
A2-TM46/250000-01	642500	260000	90	100	Bt2	loamy sand	10YR5/8					common	medium	flint	non-calcareous
A2-TM45/240990-01	642400	259900	0	30	Ap	humose sandy loam	10YR5/5					few	medium	flint	non-calcareous
A2-TM45/240990-01	642400	259900	30	55	Bw	humose sandy loam	10YR4/5					few	medium	flint	non-calcareous
A2-TM45/240990-01	642400	259900	55	65	Eb	humose loamy sand	10YR5/8					few	medium	flint	non-calcareous
A2-TM45/240990-01	642400	259900	65	70	2Bt	humose sandy clay	10YR5/8					few	medium	flint	non-calcareous
A2-TM45/240990-01	642400	259900	70	82	Bt	humose sandy loam	10YR5/8					few	medium	flint	non-calcareous
A2-TM45/240990-01	642400	259900	82	100	Bw	humose loamy sand	75YR5/8					few	medium		non-calcareous
A1-TM45/260990-01	642600	259900	0	35		loamy sand	10YR4/3					common	medium	flint	non-calcareous
A1-TM45/260990-01	642600	259900	35	70		loamy sand	75YR4/4								non-calcareous
A1-TM45/260990-01	642600	259900	70	100		loamy sand	10YR5/6								non-calcareous
A2-TM45/300950-01	643000	259500	0	30	Ap	sandy loam	10YR5/5					few	medium	flint	non-calcareous
A2-TM45/300950-01	643000	259500	30	43	Bw	loamy sand	10YR4/5					few	small	flint	non-calcareous
A2-TM45/300950-01	643000	259500	43	70	2Bt	clay	10YR5/8					few	small	flint	non-calcareous
A2-TM45/300950-01	643000	259500	70	85	2BC	clay loam	25Y7/6					few	very small	chalk	very calcareous
A2-TM45/300950-01	643000	259500	85	100	3BC	sand	10YR6/6								calcareous
A2-TM45/320945-01	643200	259450	0	34	Ap	humose loamy sand	10YR4/3					few	small	flint	calcareous
A2-TM45/320945-01	643200	259450	34	57	Bw1	humose loamy sand	10YR4/4					few	small	flint	non-calcareous
A2-TM45/320945-01	643200	259450	57	80	Bw2	humose sand	10YR6/6					common	small	flint	non-calcareous
A2-TM45/320945-01	643200	259450	80	105	BC	humose sand	10YR6/6								non-calcareous
A2-TM45/347891-01	643470	258910	0	35	Ap	humose loamy fine sand	10YR4/3					common	medium	flint	non-calcareous
A2-TM45/347891-01	643470	258910	35	48	Bw1	humose loamy fine sand	10YR5/6					few	medium	flint	non-calcareous
A2-TM45/347891-01	643470	258910	48	80	BC	humose fine sand	10YR6/7								non-calcareous
A2-TM45/310852-01	643100	258520	0	34	Ap	humose loamy sand	10YR4/3					few	small	flint	non-calcareous
A2-TM45/310852-01	643100	258520	34	55	Bw1	humose loamy sand	10YR4/4					few	small	flint	non-calcareous
A2-TM45/310852-01	643100	258520	55	80	Bw2	humose sand	75YR6/8								non-calcareous
A2-TM45/310852-01	643100	258520	80	90	BC	humose sand	10YR6/7								non-calcareous
A2-TM45/350850-01	643500	258500	0	35	Ap	loamy sand	10YR4/3					common	medium	flint	non-calcareous

Annex B: Cranfield University Auger Bore Logs

AUGERID	EASTING	NORTHING	UPPER_DEPT	LOWER_DEPT	HORIZON_NO	TEXTURE	MATRIX_COL	MOTTLE_ABU	MOTTLE_COL	SUB_MOTTLE	SUB_MOTT_1	STONE_ABUN	STONE_SIZE	STONE_TYPE	CARBONATE
A2-TM45/350850-01	643500	258500	35	40	Bw1	loamy sand	10YR5/6					common	medium	flint	non-calcareous
A2-TM45/350850-01	643500	258500	40	65	Bw2	coarse sand	10YR5/8					many	small	flint	non-calcareous
A2-TM45/350850-01	643500	258500	65	80	Bw3	coarse sand	10YR6/6					few	very small	flint	non-calcareous
A2-TM45/374824-01	643740	258240	0	7	Ah	humose loamy sand	75YR3/2					few	small	flint	non-calcareous
A2-TM45/374824-01	643740	258240	7	20	Ea1	humose loamy sand	75YR5/2					few	small	flint	non-calcareous
A2-TM45/374824-01	643740	258240	20	30	Ea2	humose loamy sand	75YR6/3					few	small	flint	non-calcareous
A2-TM45/374824-01	643740	258240	30	40	Eb	humose loamy sand	10YR4/3					few	small	flint	non-calcareous
A2-TM45/374824-01	643740	258240	40	49	Bh	humose loamy sand	75YR2/2					few	small	flint	non-calcareous
A2-TM45/374824-01	643740	258240	49	68	Bs	humose sandy loam	75YR5/8					common	small	flint	non-calcareous
A2-TM45/374824-01	643740	258240	68	73	Bf	humose loamy sand	75YR6/8					few	small	flint	non-calcareous
A2-TM45/374824-01	643740	258240	73	100	BC	humose sand	10YR7/6	common	75YR6/8	common	5YR6/8				non-calcareous
A2-TM45/431876-01	644310	258760	0	31	Ap	humose loamy sand	10YR4/3					few	medium	flint	non-calcareous
A2-TM45/431876-01	644310	258760	31	100	Bw	humose loamy sand	75YR5/5					few	small	flint	non-calcareous
A2-TM45/600850-01	646000	258500	0	1	Ah	loamy sand	10YR3/3					few	medium	flint	non-calcareous
A2-TM45/600850-01	646000	258500	1	37	Ap	loamy sand	10YR4/3	few				few	small	flint	non-calcareous
A2-TM45/600850-01	646000	258500	37	65	Bw	sand	10YR5/6					few	small	flint	non-calcareous
A2-TM45/600850-01	646000	258500	65	100	BC	loamy sand	25Y7/6	common	10YR6/8						non-calcareous
A2-TM45/626842-01	646260	258420	0	23	Ap	humose loamy sand	10YR4/4								calcareous
A2-TM45/626842-01	646260	258420	23	45	Bw(g)1	humose sand	75YR5/4	common	10YR4/6						non-calcareous
A2-TM45/626842-01	646260	258420	45	78	Bw(g)2	humose sand	10YR5/4	common	10YR4/3						non-calcareous
A2-TM45/626842-01	646260	258420	78	105	BC	humose sand	10YR6/7								non-calcareous

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