



Candwr Solar Farm

Pre Application Consultation

Environmental Statement

Appendix 8.1 Agricultural Land Classification Survey

2 July 2026





AGRICULTURAL LAND CLASSIFICATION CANDWR SOLAR FARM

CLIENT: CANDWR SOLAR FARM LTD
PROJECT: CANDWR SOLAR FARM
DATE: 2ND JUNE 2026 – ISSUE 6
ISSUED BY: JAMES FULTON MRICS FAAV

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1. EXECUTIVE SUMMARY

- 1.1 This report assesses the Agricultural Land Classification (ALC) grading of 120.3Ha, of land at Court Farm, Ponthir, Monmouthshire.
- 1.2 The limiting factor found to be soil wetness, a combination of the climatic regime, soil water regime and texture of the top 25cm of the soil across the most of the site and a combination of droughtiness, stoniness and depth on small areas throughout the site.
- 1.3 The land is graded as follows:

Non-BMV on the predictive map:	51.4 Ha
Grade 2:	17.8 Ha
Grade 3a:	5.4 Ha
Grade 3b:	36.6 Ha
Grade 4:	6.2 Ha
Non-Agricultural:	2.9 Ha

2. INTRODUCTION

- 2.1 Amet Property Ltd have been instructed by Candwr Solar Farm Ltd to produce an Agricultural Land Classification (ALC) report on a 117.8-hectare site on land at Court Farm, Ponthir, Monmouthshire. The ALC report is being prepared to accompany a planning application to be submitted for installation and operation of ground mounted solar photovoltaic arrays with all associated works, equipment and infrastructure.
- 2.2 The report's author is James Fulton BSc (Hons) MRICS FAAV who has worked as a chartered surveyor, agricultural valuer, and agricultural consultant since 2004, has a degree in agriculture which included modules on soils and over 10 years' experience in advising farmers on soil structure and cultivation methods and in producing agricultural land classification reports. Additional information on authors experience is found at **appendix 1**.
- 2.3 The report is based on 3 site surveys conducted by two surveyors on the 11th February 2023, 1st March 2025 and 7th of June 2025. Conditions during all visits were dry and sunny with soils moist for the first two visits but dry for the final visit. The surveys were carried out as three separate reports and have now been compiled into a single report. Prior to the first survey advice was sought from LQAS and areas that were shown to be non-BMV on the predictive map have not been surveyed.
- 2.4 During the inspections 5 trial pits were dug to a depth of 120cm, or as deep as possible if the sample point became impenetrable. In addition to the trial pits an auger was used to take approximately one sample per hectare on the proposed development site to a depth of 120cm with smaller trial pits at some of these locations to confirm soil structure and colour where it was not clear from the auger samples. A plan of auger points and trial pit locations can be found at **appendix 2**. The trial pit locations were selected as they were representative of the soils found on site. Where subsoils were inspected with a spade, descriptions of structure have been recorded based on the soil survey field handbook¹; where an auger has been used the structure is described as good, moderate or poor based on figure 9,10 and 11 in the MAFF² guidance. Colours are described using Munsell Colours³.
- 2.5 The area extends to 120.3Ha of which the surveyed area makes up 66ha of arable and grassland. The site is located at Court Farm, Ponthir, Monmouthshire.
- 2.6 Further information has been obtained from the MAGIC website, the Soil Survey of England and Wales, the British Geological Survey, the Meteorological Office and the WAG Predictive ALC map for Wales.

¹ Hodgson, JM (1997) Soil Survey Field Handbook

² MAFF (1988) - *Agricultural Land Classification of England and Wales. Revised guidelines and criteria for grading the quality of agricultural land*. MAFF Publications

³ Munsell Color (2009) Munsell Soil Color Charts

- 2.7 The collected information has been judged against the Ministry of Agriculture Fisheries and Food Agricultural Land Classification of England and Wales revised guidelines and criteria for grading the quality of agricultural land.
- 2.8 The principal factors influencing agricultural production are climate, site and soil and the interaction between them MAFF (1988) & Natural England (2012)⁴.
- 2.9 The report is prepared and formatted considering the latest BSSS guidance⁵.

3. PUBLISHED INFORMATION

- 3.1 The British Geological Survey 1:50,000 scale map shows the bedrock geology on the western blocks to be largely Raglan Mudstone Formation – Mudstone and sandstone, interbedded. The bedrock geology in the northeast corner of the block is shown to be Downton Castle Sandstone Formation – sandstone. The area surrounding the ford along the eastern boundary of the block is shown to have the bedrock geology of Raglan Mudstone Formation – Mudstone and sandstone, interbedded with superficial deposits of Alluvium – clay, silt, sand and gravel.

The central block is shown to have bedrock geology to be Raglan Mudstone Formation – Mudstone and sandstone, interbedded.

The eastern block is shown to have bedrock geology to be Raglan Mudstone Formation – Mudstone and sandstone, interbedded.

The southern block is shown to have bedrock geology of Raglan Mudstone Formation – Mudstone and sandstone, interbedded with superficial deposits of Alluvium – clay, silt, sand and gravel.

- 3.2 The soils on the western block of the site are identified as being 541a MILFORD Association, well drained fine loamy reddish soils over rock, in the north of the block. The soils in the east of the block are identified as being 561c ALUN Association, deep stoneless permeable coarse loamy soils. The soils in the south of the block are identified as being 541a MILFORD Association, well drained fine loamy reddish soils over rock.

The soils on the central block are identified as being 541a MILFORD Association, well drained fine loamy reddish soils over rock.

⁴ MAFF (1988) - *Agricultural Land Classification of England and Wales. Revised guidelines and criteria for grading the quality of agricultural land.* MAFF Publications

Natural England (2012) - *Technical Information Note 049 - Agricultural Land Classification: protecting the best and most versatile agricultural land*, Second Edition

⁵ BSSS (2022) Working with Soil Guidance Note on Assessing Agricultural Land Classification Surveys in England and Wales

The soils on the eastern block are identified as being 541a MILFORD Association, well drained fine loamy reddish soils over rock.

The soils on the southern block are identified as being 561c ALUN Association, deep stoneless permeable coarse loamy soils.

- 3.3 The Predictive Agricultural Land Classification maps for Wales shows the western block to be Grade 3b in the northwest and Grade 2 in the northeast. The south is shown to be Grade 3b, Grade 3a in the west, Grade 2 in the southeast and a small patch on the eastern boundary of Grade 1.

The central block near is shown to be Grade 2 with Grade 3b along the eastern boundary.

The eastern block is shown to be Grade 2 in the north, Grade 3b in the southeast and Grade 4 in the southwest.

The southern block is shown to be largely Grade 2 with patches in the north of grade 3b and an area to the south of Grade 1.

4. CLIMATE

- 4.1 Climate has a major, and in places overriding, influence on land quality affecting both the range of potential agricultural uses and the cost and level of production.
- 4.2 There is published agro-climatic data for England and Wales provided by the Meteorological Office, such data for the subject site is listed in the table below.

Agro-Climatic Data – Full details can be found at **appendix 3**

Western block - Climatic data

Grid Reference	332411,193812
Altitude (ALT)	43
Average Annual Rainfall (AAR)	1106
Accumulated Temperature - Jan to June (ATO)	1497
Duration of Field Capacity (FCD)	222
Moisture Deficit Wheat	80
Moisture Deficit Potatoes	66

Central block – Climatic data

Grid Reference	333102,193695
Altitude (ALT)	42
Average Annual Rainfall (AAR)	1077
Accumulated Temperature - Jan to June (ATO)	1498
Duration of Field Capacity (FCD)	217
Moisture Deficit Wheat	82
Moisture Deficit Potatoes	69

Eastern block – Climatic data

Grid Reference	334314,193775
Altitude (ALT)	27
Average Annual Rainfall (AAR)	1026
Accumulated Temperature - Jan to June (ATO)	1514
Duration of Field Capacity (FCD)	209
Moisture Deficit Wheat	86
Moisture Deficit Potatoes	74

Southern block – Climatic data

Grid Reference	333659,192421
Altitude (ALT)	11
Average Annual Rainfall (AAR)	1027
Accumulated Temperature - Jan to June (ATO)	1534
Duration of Field Capacity (FCD)	210
Moisture Deficit Wheat	88
Moisture Deficit Potatoes	77

- 4.3 The main parameters used in assessing the climatic limitation are average annual rainfall (AAR), as a measure of overall wetness; and accumulated temperature (ATO), as a measure of the relative warmth of a locality.
- 4.4 The AAR and ATO provide climatic limitation to Grade 1.
- 4.5 The site is shown to be in flood zone 1 – areas with a less than 1 in 1000 annual chance of flooding. There was no evidence of flooding seen during the site visit and it is considered that will not result in a limitation to land grade.

5. STONINESS

- 5.1 While there are substantial areas with stone in the topsoil, occasionally limiting areas to Grade 2, it is never the most limiting factor.

6. DEPTH

- 6.1 The depth to overlying consolidated or fragmented rock which cannot be penetrated satisfactorily limits the grade in some areas to between grade 2 and grade 3b but this is never the most limiting factor

7. GRADIENT AND MICRORELIEF

- 7.1 Most of the site is gently sloping with no gradient or microrelief that limits land grade. However, there are areas across the site that are steeper and limit these areas to Grade 3b but these areas are equally limited by other factors and so it is never the single most limiting factor.

8. SOILS

- 8.1 Full information on the sample points along with trial pit descriptions and photographs and lab test results can be found at **appendix 4**. There were two soil types identified on the site.

SOIL TYPE 1 Clay loam or silty clay loam over poorly structured slowly permeable clay loam or clay, sometimes shallow over stone

- 8.2 The topsoil was found to be a brown (10YR 5/3), dark brown (7.5YR 3/4), dark reddish brown (5YR 3/4), reddish brown (5YR 4/3) clay loam or silty clay loam with few ochreous mottles.
- 8.3 The upper subsoils had the texture of clay loam or silty clay loam. The colours were found to be light brownish grey (10YR 6/2), yellowish red (5YR 5/6), reddish brown (5YR 4/4). The subsoil had a poor structure and were gleyed or reddish soils and slowly permeable.
- 8.4 Where a second subsoil was found the texture was found to be silty clay loam in the northwest, yellowish red (5YR 5/6) with a poor structure. Stone was found from 40cm at sample points 9, 13, 14.

SOIL TYPE 2 – Clay loam or silty clay loam over moderately structured permeable clay loam or silty clay loam, sometimes shallow over stone

- 8.5 The topsoil was found to be a brown (7.5YR 4/3), dark brown (7.5YR 3/4), dark reddish brown (5YR 3/4), reddish brown (5YR 4/3) clay loam or silty clay loam with few ochreous mottles.
- 8.6 The upper subsoils were found to have the texture of clay loam or silty clay loam. The colours were found to be brown (7.5YR 4/4), dark brown (7.5YR 3/4) or strong brown (7.5YR 5/6). The subsoil had a moderate structure.
- 8.7 Occasionally a second subsoil was found the texture was found to be coarse sandy loam, brown (7.5YR 4/4) with a good structure. Impenetrable stone was found at sample point.

INTERACTIVE FACTORS

9. Wetness

- 9.1 An assessment of the wetness class of each sample point was made based on the flow chart at Figure 6 and the graphs at Figure 7 and 8 in the MAFF guidance.
- 9.2 The wetness class assessment results in an assessment of wetness class I where the subsoil is not gleyed and slowly permeable and wetness class IV where the subsoil is gleyed and slowly permeable.
- 9.3 The wetness class and topsoil texture were then assessed against Table 6 of the MAFF guidance to determine the ALC grade according to wetness. The wetness assessment can be found at **appendix 4**.
- 9.4 Wetness was shown to be the limiting factor across the majority of the site.

10. DROUGHTINESS

- 10.1 Droughtiness limits are defined in terms of moisture balance for wheat and potatoes using the formula:

$$MB \text{ (Wheat)} = AP \text{ (Wheat)} - MD \text{ (Wheat)}$$

and

$$MB \text{ (Potatoes)} = AP \text{ (Potatoes)} - MD \text{ (Potatoes)}$$

Where:

MB = Moisture Balance

AP = Crop Adjusted available water capacity

MD = Moisture deficit

- 10.2 Moisture deficit for wheat and potatoes can be found in the agro-climatic data and are as follows:

$$MD \text{ (Wheat)} = 80-88$$

$$MD \text{ (Potatoes)} = 66-77$$

- 10.3 Crop adjusted available water is calculated by reference to the total available water and easily available water which is calculated by reference to soil texture and structural condition and the stone content.
- 10.4 The moisture balance was calculated for all survey points and this assessment can be found at **appendix 4**.
- 10.5 Droughtiness was shown to be the limiting factor where soils were not slowly permeable with most significant limitations occurring where soils are shallow and stony.

11. AGRICULTURAL LAND CLASSIFICATION

- 11.1 The Agricultural Land Classification provides a framework for classifying land according to which its physical or chemical characteristics impose long-term limitations on agricultural use. The limitations can operate in one or more of four principle ways: they may affect the range of crops that can be grown, the level of yield, the consistency of yield and the cost of obtaining it.
- 11.2 The principle physical factors influencing agricultural production are climate, site and soil and the interactions between them which together form the basis for classifying land into one of 5 grades; grade 1 being of excellent quality and grade 5 being land of very poor quality. Grade 3 land, which constitutes approximately half of all agricultural land in the United Kingdom is divided into 2 subgrades – 3a and 3b. A full definition of all of the grades can be found at **appendix 5**.
- 11.3 This assessment sets out that the site is limited by wetness, droughtiness, stoniness and depth.
- 11.4 The breakdown of land by classification is:
- | | |
|--------------------------------|---------|
| Non-BMV on the predictive map: | 51.4 Ha |
| Grade 2: | 17.8 Ha |
| Grade 3a: | 5.4 Ha |
| Grade 3b: | 36.6 Ha |
| Grade 4: | 6.2 Ha |
| Non-Agricultural: | 2.9 Ha |
- 11.5 A plan of the land grading can be found at **appendix 6**.

Appendix 1 – Details of the Authors Experience

James Fulton

Professional Education and Qualifications

BSc (Hons) Agriculture, University of Nottingham (2004)

Member of the Royal Institution of Chartered Surveyors (MRICS) (2008)

Fellow of the Central Association of Agricultural Valuers (FAAV) (2009)

Relevant Work Experience

While working for a regional firm from 2004 until 2016 as part of my work I provided advice to farmers on soils, cultivation techniques and cropping and was involved in field trials which assessed cropping and cultivation techniques and how they impacted soil structure. At the same time I worked alongside an experienced surveyor who produced Agricultural Land Classification reports and I received training in field survey techniques and the ALC process to the point where I was able to produce ALC reports.

In 2016 I left my employer and formed Amet Property Ltd providing development consultancy and other rural practice surveying services. Of all of the services that we provide Agricultural Land Classification reports is the single largest area of work accounting for approximately 70% of all of my working time.

While I am not a member of the BSSS I meet the minimum competencies set out by the BSSS in Document 1 *Foundation skills in field soil investigation, description and interpretation* and Document 2 *Agricultural Land Classification (England and Wales)*

Professional Standards

As a member of the Royal Institution of Chartered Surveyors and Fellow of the Central Association of Agricultural Valuers I am bound by their professional standards and am only able to carry out work where I am suitably qualified and experienced to do so. Due to the formal and practical training that I have received I am able to competently produce Agricultural Land Classification reports.

Assistant Surveyors

All assistant surveyors have completed the BSSS working with soil course and have been trained to meet the requirements of BSSS Document 1 *Foundation skills in field soil investigation, description, and interpretation*.

Land App



Appendix 3 – Climatic Data

Site Details: Court Farm – central block

Grid reference (centre of site): 333102,193695

Altitude: Mean 42.25 AOD

Climatic data from surrounding locations:

Grid Reference	ALT	AAR	LR_AAR	ASR	ATO	ATS	MDW	MDP	FCD
33001900	8	1140	1.6	520	1539	2458	82	70	228
33001950	40	1174	1.5	540	1501	2416	76	62	233
33501900	65	1031	1.1	475	1473	2387	82	69	211
33501950	51	1033	1	480	1487	2402	83	70	210

Altitude Adjusted:

Grid Reference	AAR	ATO	FCD	MDW	MDP	Proximity Adjustment
33001900	1194.80	1499.96	235.92	74.65	60.38	11.38%
33001950	1177.38	1498.44	233.49	75.53	61.39	23.38%
33501900	1005.98	1498.94	207.38	86.09	74.36	15.34%
33501950	1024.25	1496.98	208.73	84.51	71.98	49.90%

Site Details: Court Farm – eastern block

Grid reference (centre of site): 334314,193775

Altitude: Mean 27.33 AOD

Climatic data from surrounding locations:

Grid Reference	ALT	AAR	LR_AAR	ASR	ATO	ATS	MDW	MDP	FCD
33001900	8	1140	1.6	520	1539	2458	82	70	228
33001950	40	1174	1.5	540	1501	2416	76	62	233
33501900	65	1031	1.1	475	1473	2387	82	69	211
33501950	51	1033	1	480	1487	2402	83	70	210

Altitude Adjusted:

Grid Reference	AAR	ATO	FCD	MDW	MDP	Proximity Adjustment
33001900	1170.93	1516.96	232.47	77.85	64.57	4.64%
33001950	1155.00	1515.44	230.25	78.63	65.44	7.59%
33501900	989.56	1515.94	205.01	88.77	77.88	10.36%
33501950	1009.33	1513.98	206.58	87.09	75.37	77.41%

Site Details: Court Farm – southern block

Grid reference (centre of site): 333599,192881

Altitude: Mean 29.82 AOD

Climatic data from surrounding locations:

Grid Reference	ALT	AAR	LR_AAR	ASR	ATO	ATS	MDW	MDP	FCD
33001900	8	1140	1.6	520	1539	2458	82	70	228
33001950	40	1174	1.5	540	1501	2416	76	62	233
33501900	65	1031	1.1	475	1473	2387	82	69	211
33501950	51	1033	1	480	1487	2402	83	70	210

Altitude Adjusted:

Grid Reference	AAR	ATO	FCD	MDW	MDP	Proximity Adjustment
33001900	1174.91	1514.13	233.05	77.32	63.87	13.19%
33001950	1158.73	1512.61	230.79	78.11	64.77	16.07%
33501900	992.30	1513.11	205.40	88.32	77.30	27.31%
33501950	1011.82	1511.15	206.94	86.66	74.80	43.43%

Site Details: Court Farm – western block

Grid reference (centre of site): 332411,193812

Altitude: Mean 43.29 AOD

Climatic data from surrounding locations:

Grid Reference	ALT	AAR	LR_AAR	ASR	ATO	ATS	MDW	MDP	FCD
33001900	8	1140	1.6	520	1539	2458	82	70	228
33001950	40	1174	1.5	540	1501	2416	76	62	233
33501900	65	1031	1.1	475	1473	2387	82	69	211
33501950	51	1033	1	480	1487	2402	83	70	210

Altitude Adjusted:

Grid Reference	AAR	ATO	FCD	MDW	MDP	Proximity Adjustment
33001900	1196.46	1498.77	236.16	74.43	60.09	13.73%
33001950	1178.94	1497.25	233.71	75.32	61.11	38.68%
33501900	1007.12	1497.75	207.55	85.90	74.12	13.16%
33501950	1025.29	1495.79	208.89	84.33	71.75	34.43%

Appendix 4a - Sample Point Assessment

		Topsoil			Stoniness			Upper Subsoil			Lower Subsoil			Wetness Assessment			Grade		Droughtiness Assessment		Grade		Most							
Sample No	Altitude	Depth	Texture	Colour	<2cm	2-6cm	>6cm	Mottles	Depth	Texture	Colour	Stoniness	Mottles	Structure	Depth	Texture	Calc	Colour	Stoniness	Mottles	Structure	Depth to Gleyed	SPL	Wetness Class	Wetness limit by	Wheat MB	Potato MB	Droughtiness limit by	limiting Grade	
1	55	0 - 30	MCL	10YR 4 / 3	5%	10%			30 - 60	MZCL	10YR 4 / 6		CB	Moderate	60 - 120	Stone					Poor			I	2	13.35	32.35	2	2	
2	51	0 - 30	MCL	5YR 4 / 4		5%			30 - 50	MZCL	7.5YR 4 / 4		CGB	Moderate	50 - 120	Stone					Poor			I	2	8.95	21.45	2	2	
3	53	0 - 30	MCL	10YR 4 / 3		5%			30 - 60	MZCL	10YR 4 / 6		CB	Moderate	60 - 120	Stone					Poor			I	2	18.45	37.45	2	2	
4	42	0 - 30	MCL	5YR 4 / 4		5%			30 - 120	ZC	5YR 4 / 4		CGB	Moderate										I	2	57.45	45.45	1	2	
5	44	0 - 30	MCL	5YR 4 / 4		5%			30 - 120	MZCL	5YR 4 / 4		CGB	Moderate										I	2	75.45	53.45	1	2	
6	34	0 - 30	MCL	10YR 4 / 3		5%			30 - 55	C	2.5Y 6 / 2		MOB	Poor	55 - 120	Stone					Poor	30	30	IV	3b	4.20	19.45	3a	3b	
7	38	0 - 30	MCL	10YR 4 / 3		5%			30 - 70	MZCL	5YR 4 / 4		CB	Moderate	70 - 120	Stone					Poor			I	2	27.95	53.45	2	2	
8	34	0 - 30	MCL	10YR 4 / 3		5%			30 - 120	MZCL	10YR 5 / 3		cob	Poor								30	30	IV	3b	37.45	33.45	1	3b	
9	37	0 - 30	MCL	10YR 4 / 3					30 - 60	C	10YR 6 / 3		CB	Poor	60 - 120	C	5YR 4 / 4			CGB	Poor	30	30	IV	3b	49.00	40.00	1	3b	
10	44	0 - 30	MCL	10YR 4 / 3					30 - 120	ZC	5YR 4 / 4		CB	Moderate										I	2	60.00	48.00	1	2	
11	38	0 - 30	MCL	10YR 4 / 3					30 - 120	ZC	5YR 5 / 3		COGB	Poor								30	30	IV	3b	47.00	36.00	1	3b	
12	31	0 - 25	MZCL	10YR 4 / 3					25 - 120	C	2.5Y 5 / 2		MOB	Poor								25	25	IV	4	49.00	40.00	1	3b	
13	39	0 - 30	HZCL	10YR 4 / 3					25 - 120	ZC	5YR 3 / 3		COGB	Poor								reddish	25	IV	4	56.00	45.00	1	4	
14	46	0 - 25	HZCL	10YR 5 / 3				FO	25 - 45	HZCL	10YR 6 / 2		CO	Poor	45 - 120	HZCL	N	5YR 5 / 6		CBG	Poor	25	25	IV	4	39.50	35.50	1	4	
15	38	0 - 25	HZCL	10YR 5 / 3				FO	25 - 120	HZCL	5YR 5 / 6		FB	Poor								reddish	25	IV	4	39.50	35.50	1	4	
16	27	0 - 35	HZCL	7.5YR 3 / 4				FO	25 - 120	Stone				Poor										I	3a	-7.50	5.00	3a	3a	
17	32	0 - 25	HZCL	7.5YR 3 / 4				FO	30 - 40	HZCL	7.5YR 4 / 4		CGB	Moderate	40 - 120	Stone					Poor			I	3a	-11.00	1.50	3a	3a	
18	23	0 - 25	MCL	7.5YR 3 / 4	10%			FB	25 - 120	MZCL	7.5YR 5 / 6		FB	Moderate										I	2	67.25	43.25	1	2	
19	43	0 - 30	MCL	10YR 4 / 3		5%		FB	30 - 120	HZCL	5YR 4 / 4		FB	Poor								reddish	30	IV	3b	37.45	33.45	1	3b	
20	38	0 - 30	MCL	5YR 4 / 3		5%		FB	30 - 120	MZCL	5YR 4 / 4		FB	Poor								reddish	30	IV	3b	37.45	33.45	1	3b	
21	32	0 - 25	HZCL	7.5YR 3 / 4	10%			FO	25 - 40	HZCL	10YR 6 / 2		CO	Poor	40 - 120	Stone					Poor	25	25	IV	4	-14.50	-2.00	3a	4	
22	14	0 - 25	HZCL	7.5YR 3 / 4	10%			FO	25 - 40	HZCL	10YR 6 / 2		CO	Poor	40 - 120	Stone					Poor	25	25	IV	4	-14.50	-2.00	3a	4	
23	48	0 - 30	MCL	5YR 3 / 4		5%		FB	30 - 120	MCL	5YR 4 / 4		CBG	Poor								reddish	30	IV	3b	42.45	30.45	1	3b	
24	28	0 - 25	MCL	7.5YR 3 / 4	10%			FB	25 - 120	MZCL	7.5YR 5 / 6		FB	Moderate										I	2	67.25	43.25	1	2	
25	31	0 - 20	MCL	5YR 3 / 4	10%			FB	20 - 60	mSZL	7.5YR 3 / 4		CBG	Moderate	60 - 120	Stone					Poor			I	2	11.60	27.60	2	2	
26	57	0 - 25	MCL	10YR 4 / 3	10%			FB	25 - 120	Stone				Poor										I	2	-33.25	-20.75	3b	3b	
27	58	0 - 30	MCL	10YR 4 / 3	10%			FB	30 - 70	MZCL	5YR 4 / 4		FB	Moderate	70 - 120	Stone					Poor			I	2	25.40	50.90	2	2	
28	53	0 - 30	MCL	5YR 4 / 3	5%			FB	30 - 120	Stone				Poor										I	2	-23.05	-10.55	3b	3b	
29	42	Non Agricultural																												
30	29	0 - 30	MCL	7.5YR 4 / 3		5%		FB	30 - 40	MCL	7.5YR 4 / 4		CB	Good	40 - 120	Stone					Poor			I	2	-3.05	9.45	3a	3a	
31	46	0 - 30	MCL	5YR 4 / 3	10%			FO	30 - 120	MCL	5YR 4 / 4		CBG	Poor								reddish	30	IV	3b	39.90	27.90	1	3b	
32	34	0 - 30	MZCL	5YR 3 / 4		5%		FO	30 - 120	MZCL	5YR 4 / 4		CBG	Poor								reddish	30	IV	3b	38.30	33.30	1	3b	
33	66	0 - 15	MCL	7.5YR 4 / 3	10%			FB	15 - 120	Stone				Poor										I	2	-48.55	-36.05	3b	3b	
34	61	0 - 30	MCL	7.5YR 4 / 3		5%		FB	30 - 120	HZCL	5YR 4 / 4		FB	Poor								reddish	30	IV	3b	37.45	33.45	1	3b	
35	55	0 - 30	MCL	7.5YR 4 / 3		5%		FB	30 - 120	HZCL	5YR 4 / 4		CGB	Poor								reddish	30	IV	3b	37.45	33.45	1	3b	
36	44	0 - 30	MCL	7.5YR 4 / 3	10%			FB	30 - 60	HZCL	5YR 4 / 4	5%	CB	Poor	60 - 120	Stone					Poor	reddish	30	IV	3b	0.53	18.25	3a	3b	
37	41	0 - 20	MCL	5YR 4 / 3	10%			FO	20 - 120	HZCL	5YR 4 / 4		CBG	Poor								reddish	20	IV	3b	28.60	23.60	2	3b	
38	60	0 - 30	MCL	7.5YR 4 / 3		5%		FB	30 - 120	HZCL	5YR 4 / 4		CB	Poor										30	IV	3b	37.45	33.45	1	3b
39	52	0 - 30	MCL	7.5YR 4 / 3		5%		FB	30 - 120	HZCL	5YR 4 / 4		CB	Poor								reddish	30	IV	3b	37.45	33.45	1	3b	
40	41	0 - 30	MCL	7.5YR 4 / 3		5%		FB	30 - 120	HZCL	5YR 4 / 4		CB	Poor								reddish	30	IV	3b	37.45	33.45	1	3b	
41	37	0 - 30	MCL	7.5YR 4 / 3		5%		FB	30 - 120	Stone				Poor										I	2	-23.05	-10.55	3b	3b	
42	47	0 - 30	MCL	7.5YR 4 / 3		5%		FB	30 - 120	HZCL	5YR 4 / 4		CB	Poor								reddish	30	IV	3b	37.45	33.45	1	3b	
43	43	0 - 30	MCL	7.5YR 4 / 3		5%		FB	30 - 120	HZCL	5YR 4 / 4		CB	Poor								reddish	30	IV	3b	37.45	33.45	1	3b	
44	49	0 - 30	MCL	7.5YR 4 / 3		5%		FB	30 - 120	ZC	5YR 4 / 4		CB	Poor								reddish	30	IV	3b	44.45	33.45	1	3b	
45	48	0 - 30	MZCL	5YR 4 / 4					30 - 60	MZCL	5YR 4 / 4		CGB	Moderate	60 - 120	Stone					Poor			I	2	16.00	32.00	2	2	
46	41	0 - 35	MZCL	5YR 4 / 4					35 - 120	ZC	5YR 4 / 4		CGB	Moderate								reddish	I	2	57.00	42.00	1	2		
47	42	0 - 35	MZCL	5YR 4 / 4					35 - 120	ZC	5YR 4 / 4		CGB	Moderate								reddish	I	2	57.00	42.00	1	2		
48	38	0 - 30	MCL	5YR 4 / 4					30 - 40	ZC	5YR 4 / 4		CGB	Moderate	40 - 120	Stone					Poor	reddish	I	2	-14.50	-5.00	3a	3a		
49	35	0 - 30	MCL	5YR 4 / 4					30 - 45	ZC	5YR 4 / 4		CGB	Moderate	45 - 120	Stone					Poor	reddish	I	2	-7.50	2.00	3a	3a		
50	33	0 - 30	MCL	5YR 4 / 4					30 - 40	ZC	5YR 4 / 4		CGB	Moderate	40 - 120	Stone					Poor	reddish	I	2	-14.50	-5.00	3a	3a		
51	30	0 - 30	MCL	5YR 4 / 4					30 - 40	ZC	5YR 4 / 4		CGB	Moderate	40 - 120	Stone					Poor	reddish	I	2	-14.50	-5.00	3a	3a		
52	28	0 - 30	MCL	5YR 4 / 4					30 - 40	ZC	5YR 4 / 4																			

Appendix 4b – Trial Pit Descriptions

Survey 1

Sample Point No. 12		
Horizon 1	0-25 cm Brown (10YR 4/3) stoneless medium silty clay loam topsoil with a weak medium sub angular blocky structure.	
Horizon 2	25-120 cm – Greyish brown (2.5Y 5/2) stoneless clay subsoil with many ochreous and black mottles. Very weakly structured but coarse platy structure can be identified where a large lump is gently pulled apart.	
Pictures		
Horizon 1	Horizon 2	Horizon 2 cont
		
Slowly permeable layer	25cm identified by the poorly structured clay subsoil with less than 0.5% biopores >0.5mm and ochreous mottles evidencing wetness	
Gleying	25cm evidenced by grey colours and ochreous mottles	
Wetness Class	IV	
Wetness limitation	3b	
MB Wheat	49	
MB potatoes	40	
Droughtiness Limitation	1	

Sample Point No. 45		
Horizon 1	0-30cm Reddish brown (5YR 4/4) stoneless medium silty clay loam topsoil with a weak fine sub angular blocky structure	
Horizon 2	30-60cm Reddish brown (5YR 4/4) stoneless medium silt clay loam subsoil with common grey and black mottles. Structure is medium angular blocky but with a coarse platy section at the top of the horizon likely caused by mechanical compaction.	
Horizon 3	60cm – Impenetrable to further digging or augering with hand tools due to presence of broken bedrock layer.	
Pictures		
Horizon 1	Horizon 2	Horizon 3
		
Slowly permeable layer	Not present	
Gleying	Not present	
Wetness Class	I	
Wetness limitation	2	
MB Wheat	16	
MB potatoes	32	
Droughtiness Limitation	2	

Survey 2

Sample Point No. 14		
Horizon 1	0-25cm – Brown (10YR 5/3) Heavy silty clay loam (HZCL) stoneless topsoil with few ochreous (FO) mottles and a medium sub angular blocky structure (MSAB).	
Horizon 2	25-45cm – Light brownish grey (10YR 6/2) heavy silty clay loam (HZCL) stoneless upper subsoil with common ochreous (CO) mottles and a weak coarse angular blocky (CAB) structure with firm consistence.	
Horizon 3	45 - 120cm – Yellowish red (5YR 5/6) heavy silty clay loam (HZCL) stoneless lower subsoil with common black and grey (CBG) mottles and a coarse platy (CP) structure with a firm consistence.	
Pictures		
Horizon 1	Horizon 2	Horizon 3
		
Slowly permeable layer	Starts at 25cm – evidenced by weak coarse angular blocky structure with less than 0.5% biopores >0.5mm.	
Gleying	Starts at 25cm evidenced by greyish ped faces and ochreous mottles.	
Wetness Class	IV	
Wetness limitation	4	
MB Wheat	39.5	
MB potatoes	35.5	
Droughtiness Limitation	1	

Sample Point No. 61		
Horizon 1	0-35cm – Brown (7.5YR 4/3) medium clay loam (MCL) stoneless topsoil and few black (FB) mottles and a medium sub angular blocky structure (MSAB).	
Horizon 2	35-80cm – Brown (7.5Y 4/4) medium clay loam (MCL) stoneless upper subsoil with few ochreous and black (FOB) mottles. The horizon appeared to have a course platy structure, however, this seemed to be due to compaction and the structure was actually a coarse subangular blocky structure.	
Horizon 3	80 -120cm – Brown (7.5YR 4/4) course sandy loam (cSL) stoneless lower subsoil with no evidence of mottling and a medium subangular blocky (MSAB) structure.	
Pictures		
Horizon 1	Horizon 2	Horizon 3
		
Slowly permeable layer	Not present.	
Gleying	Not present.	
Wetness Class	I	
Wetness limitation	2	
MB Wheat	89	
MB potatoes	42	
Droughtiness Limitation	1	

Sample Point No. 14	
Description	Example of mottling in core samples at Point 1
	

Sample Point No. 15	
Description	View looking East from Point 15 showing general site topography.
	

Sample Point No. 23	
Description	View looking South from Point 23 showing general site topography.
	

Sample Point No. 31	
Description	Example of mottling in core samples at Point 8
	

Sample Point No. 25	
Description	View looking West from Point 13 showing gradient of site.
	

Sample Point No. 59	
Description	View looking South East from Point 14 showing general site topography.
	

Survey 3

Sample Point No. 43		
Horizon 1	0-30 cm – Brown (7.5YR 4/3) medium clay loam (MCL) topsoil with 5% rounded stones (2-6cm) and few black (FB) mottles and a weak fine sub angular blocky structure (WFSAB).	
Horizon 2	30-120cm – Reddish brownish (5YR 4/4) silty clay (ZC) stoneless upper subsoil with few black (FB) mottles and a coarse prismatic (CP) structure.	
Horizon 2 cont:	Picture showing depth (30 cm) to horizon 2	
Pictures		
Horizon 1	Horizon 2	Horizon 2 cont:
		
Slowly permeable layer	Starts at 30cm – evidenced by weak coarse prismatic structure with less than 0.5% biopores >0.5mm.	
Gleying	Not present but soils reddish	
Wetness Class	IV	
Wetness limitation	3b	
MB Wheat	37.45	
MB potatoes	33.45	
Droughtiness Limitation	1	

Sample Point No. 19	
Description	Core samples of topsoil and upper sub soil at Point 11
	

Sample Point No. 30	
Description	Example of mottling in upper sub soil core sample at Point 22
	

Sample Point No. 33	
Description	Stoney layer at 15cm preventing further hand augering.
	

Sample Point No. 34	
Description	View looking South from Point 26 showing general site topography.
	

Sample Point No. 35	
Description	View looking East from Point 27 showing general site topography.
	

ANALYTICAL REPORT

Report Number	57714-23	W250	AMET PROPERTY	Client	PONTHIR
Date Received	15-FEB-2023		HENWICK BARN		
Date Reported	28-FEB-2023		BULWICK		
Project	SOIL		CORBY		
Reference	PONTHIR		NORTHANTS		
Order Number			NN17 3DU		

Laboratory Reference		SOIL610054	SOIL610055	SOIL610056	SOIL610057	SOIL610058					
Sample Reference		PONTHIR 2TS (Not in scheme)	PONTHIR 13TS (Now point 7)	PONTHIR 13SS (Now point 7)	PONTHIR 20TS (Now point 45)	PONTHIR 20SS (Now point 45)					
Determinand	Unit	SOIL	SOIL	SOIL	SOIL	SOIL					
Coarse Sand 2.00-0.63mm	% w/w	2	2	2	7	3					
Medium Sand 0.63-0.212mm	% w/w	4	7	6	2	3					
Fine Sand 0.212-0.063mm	% w/w	10	12	12	5	2					
Silt 0.063-0.002mm	% w/w	52	56	57	62	66					
Clay <0.002mm	% w/w	32	23	23	24	26					
Textural Class **		HZCL	MCL	MCL/MZCL	MZCL	MZCL					

Notes

Analysis Notes	The sample submitted was of adequate size to complete all analysis requested. The results as reported relate only to the item(s) submitted for testing. The results are presented on a dry matter basis unless otherwise stipulated.
Document Control	This test report shall not be reproduced, except in full, without the written approval of the laboratory.

Reported by	** Please see the attached document for the definition of textural classes. Myles Nicholson Natural Resource Management, a trading division of Cawood Scientific Ltd. Coopers Bridge, Braziers Lane, Bracknell, Berkshire, RG42 6NS Tel: 01344 886338 Fax: 01344 890972 email: enquiries@nrm.uk.com
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ADAS (UK) Textural Class Abbreviations

The texture classes are denoted by the following abbreviations:

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

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

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

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

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

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

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

ANALYTICAL REPORT

Report Number	83119-25	W250	AMET PROPERTY
Date Received	10-MAR-2025		HENWICK BARN
Date Reported	20-MAR-2025		BULWICK
Project	SOIL		CORBY
Reference	AMET PROPERTY		NORTHANTS
Order Number			NN17 3DU

Laboratory Reference		SOIL741266	SOIL741267	SOIL741268	SOIL741269						
Sample Reference		PONT 1 TS (Now point 14)	OONT 1 SS 1 (Now point 14)	PONT 16 TS (Now point 61)	PONT 16 SS (Now point 61)						
Determinand	Unit	SOIL	SOIL	SOIL	SOIL						
Coarse Sand 2.00-0.63mm	% w/w	2	0	1	1						
Medium Sand 0.63-0.212mm	% w/w	6	3	9	10						
Fine Sand 0.212-0.063mm	% w/w	12	7	17	25						
Silt 0.063-0.002mm	% w/w	49	58	49	44						
Clay <0.002mm	% w/w	31	32	24	20						
Textural Class **		HCL/HZCL	HZCL	MCL	MCL						

Notes	
Analysis Notes	The sample submitted was of adequate size to complete all analysis requested. The results as reported relate only to the item(s) submitted for testing. The results are presented on a dry matter basis unless otherwise stipulated.
Document Control	This test report shall not be reproduced, except in full, without the written approval of the laboratory.

Reported by	** Please see the attached document for the definition of textural classes. <i>Teresa Clyne</i> Natural Resource Management, a trading division of Cawood Scientific Ltd. Coopers Bridge, Braziers Lane, Bracknell, Berkshire, RG42 6NS Tel: 01344 886338 Fax: 01344 890972 email: enquiries@nrm.uk.com
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ADAS (UK) Textural Class Abbreviations

The texture classes are denoted by the following abbreviations:

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

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

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

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

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

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

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

ANALYTICAL REPORT

Report Number	96022-25	W250	AMET PROPERTY
Date Received	12-JUN-2025		HENWICK BARN
Date Reported	23-JUN-2025		BULWICK
Project	SOIL		CORBY
Reference	PONT 37		NORTHANTS
Order Number			NN17 3DU

Laboratory Reference		SOIL754049	SOIL754050								
Sample Reference		PONT 37 TS (Now point 44)	PONT 37 SS (Now point 44)								
Determinand	Unit	SOIL	SOIL								
Coarse Sand 2.00-0.63mm	% w/w	6	0								
Medium Sand 0.63-0.212mm	% w/w	4	0								
Fine Sand 0.212-0.063mm	% w/w	13	1								
Silt 0.063-0.002mm	% w/w	53	62								
Clay <0.002mm	% w/w	24	37								
Textural Class **		MCL	ZC								

Notes	
Analysis Notes	The sample submitted was of adequate size to complete all analysis requested. The results as reported relate only to the item(s) submitted for testing. The results are presented on a dry matter basis unless otherwise stipulated.
Document Control	This test report shall not be reproduced, except in full, without the written approval of the laboratory.

Reported by	** Please see the attached document for the definition of textural classes. Katie Dunn Natural Resource Management, a trading division of Cawood Scientific Ltd. Coopers Bridge, Braziers Lane, Bracknell, Berkshire, RG42 6NS Tel: 01344 886338 Fax: 01344 890972 email: enquiries@nrm.uk.com
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ADAS (UK) Textural Class Abbreviations

The texture classes are denoted by the following abbreviations:

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

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

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

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

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

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

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

APPENDIX 5 - DESCRIPTION OF ALC GRADES

- Grade 1 - excellent quality agricultural land Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.
- Grade 2 - very good quality agricultural land Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
- Grade 3 - good to moderate quality agricultural land Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.
- Subgrade 3a - good quality agricultural land Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.
- Subgrade 3b - moderate quality agricultural land Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.
- Grade 4 - poor quality agricultural land Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.
- Grade 5 - very poor-quality agricultural land Land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

Appendix 6 - Map of ALC Grade

