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Wiltshire Minerals Local Plan Alderbury Farm, Alderbury **Agricultural Land Classification**

Prepared for MAFF by H C Lloyd Jones ADAS Statutory Unit Bristol

ADAS (

Ministry of Agriculture, Fisheries and Food MAFE Land Use Planning Unit



WILTSHIRE MINERALS LOCAL PLAN

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ALDERBURY FARM, ALDERBURY

AGRICULTURAL LAND CLASSIFICATION

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WILTSHIRE MINERALS LOCAL PLAN

ALDERBURY FARM, ALDERBURY

AGRICULTURAL LAND CLASSIFICATION SURVEY

SUMMARY

The survey was carried out by ADAS on behalf of MAFF as part of its statutory role in the preparation of the Wiltshire Minerals Local Plan. The fieldwork at Alderbury Farm, Alderbury was completed in May 1995 at a scale of 1:10,000. Data on climate, soils, geology and from previous Agricultural Land Classification (ALC) Surveys was used and is presented in the report. The distribution of grades is shown on the accompanying ALC map and summarised below. Information is correct at this scale but could be misleading if enlarged.

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Distribution of ALC grades: Alderbury Farm

Area (ha)	% of Survey Area	% of Ag <i>ricultural</i> Land (58.2 ha)
4.8	8.2	8.8
31.4	54.0	57.3
8.6	14.8	15.7
10.0	17.2	18.2
0.4	0.7	0.0
2.3	4.0	0.0
0.7	1.1	0.0
58.2	100.0	100.0
	Area (ha) 4.8 31.4 8.6 10.0 0.4 2.3 0.7 58.2	% of Area (ha) Survey Area 4.8 8.2 31.4 54.0 8.6 14.8 10.0 17.2 0.4 0.7 2.3 4.0 0.7 1.1 58.2 100.0

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Two thirds of the agricultural land surveyed (36.2 ha) has been mapped as 'best and most versatile'. The land to the west of Nythefield Copse and to the north of the track suffer from moderate droughtiness limitations due to the light soil textures and their high flint gravel contents. The fields to the west of Nythefield Copse mainly suffer from moderate and severe wetness limitations, although the land on the southern side of the track only has a minor wetness limitation.

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1. INTRODUCTION

An Agricultural Land Classification (ALC) Survey was carried out in April and May 1995 at Alderbury Farm, Alderbury on behalf of MAFF as part of its statutory role in the preparation of the Wiltshire Minerals Local Plan. The fieldwork covering 58.2 ha of land was conducted by ADAS at a scale of 1:10,000 with approximately one boring per hectare of agricultural land. A total of 57 auger borings were examined and 5 soil profile pits used to assess subsoil conditions.

The published provisional one inch to the mile ALC map of this area (MAFF, 1974) shows the grades of the site at a reconnaissance scale. This shows the northern half of the site as Grade 3 and the southern half of the site as Grade 4.

The north-east corner of the site was also surveyed in 1979 at a scale of 1:25,000. This area was all mapped as Subgrade 3a.

The recent survey supersedes these previous surveys having been carried out at a more detailed level and using the Revised Guidelines and Criteria for grading the quality of agricultural land (MAFF 1988). These guidelines provide a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. The grading takes account of the top 120 cm of the soil profile. A description of the grades used in the ALC system can be found in Appendix 2.

2. CLIMATE

The grade of the land is determined by the most limiting factor present. The overall climate is considered first because it can have an overriding influence on restricting land to a lower grade despite other favourable conditions.

Estimates of climatic variables were interpolated from the published agricultural climate dataset (Meteorological Office 1989). The parameters used for assessing overall climate are accumulated temperature, a measure of the relative warmth of a locality, and average annual rainfall, a measure of overall wetness. The results shown in Table 1 indicate there is no overall climatic limitation.

 Table 1:
 Climatic Interpolations:
 Alderbury Farm

Grid Reference		SU 175 252	SU 183 257	SU 179 261
Altitude (m)		40	47	40
Accumulated Temperatu	re (day °)	1511	. 1503	1511
Average Annual Rainfall	(mm)	802	805	798
Overall Climatic Grade		1	1	1
Field Capacity Days		177	178	177
Moisture deficit (mm):	Wheat	108	106	108
	Potatoes	101	99	101

Climatic data on Field Capacity Days (FCD) and Moisture Deficits for wheat and potatoes are also shown. These data are used in assessing the soil wetness and droughtiness limitations referred to in later sections.

3. RELIEF AND LANDCOVER

The site is found on the flood plain of the River Avon and is relatively flat. The altitude is on average 40m AOD although it rises to 47m AOD at the start of the valley side on the eastern edge of the site. All of the gradients are of less than 7°. At the time of survey the land was being used for permanent pasture and arable cultivation. There is a small area of woodland in the centre of the site.

4. GEOLOGY AND SOILS

The geology of the site is shown on the published 1:50,000 scale drift geology map, sheet 298 (Institute of Geological Sciences, 1976). Most of the valley floor is underlain by valley gravels, with areas of alluvium along the southem edge of the site and around Nythefield Copse. The valley sides are underlain by Reading Beds to the north of Alderbury Farm and Upper Chalk to the south of the farm.

The soils were mapped by the Soil Survey of England and Wales in 1983 at a reconnaissance scale of 1:250,000. This shows that the majority of the sile contains soils from the Frome Association which are described as shallow calcareous and non-calcareous loamy soils over flint gravel which are affected by groundwater. There are also small areas of peat and a risk of flooding. The northern part of the site contains soils from the Hucklesbrook Association which are described as well drained coarse loamy and in cases sandy soils, commonly over gravel. Some similar permeable soils are affected by groundwater. On the valley sides to the south of Alderbury Farm the soils belong to the Andover 2 Association and are described as shallow well drained calcareous silty soils over chalk. They are associated with deeper non-calcareous variably flinty, well drained fine silty and fine silty over clayey soils. To the north of the farm the soils come from the Oxpasture Association which are described as fine loamy over clayey and clayey soils with slowly permeable subsoils and slight seasonal waterlogging. There are also some slowly permeable seasonally waterlogged clayey soils.

The soils found during the recent survey were similar to those of the Frome and Hucklesbrook Associations. In the northern part of the site the profiles become more sandy but were still shallow over the flint gravel. To the south of the track running through the site there are areas of shallow profiles with high contents of flint gravel. An area of poorly drained clay profiles was found immediately to the east of Nythefield Copse. There are also profiles with peaty subsoils to the south and east of Nythefield Copse.

5. AGRICULTURAL LAND CLASSIFICATION

The distribution of ALC grades is shown in Table 2 and on the accompanying ALC map. This information could be misleading if shown at a larger scale.

Table 2: Distribution of ALC grades: Alderbury Farm

Grade	Area (ha)	% of Survey Area	% of Agricultural Land (58.2 ha)
2	4.8	8.2	8.8
3a	31.4	54.0	57.3
3b	8.6	14.8	15.7
4	10.0	17.2	18.2
Urban	0.4	0.7	0.0
Non Agricultural	2.3	4.0	0.0
Open water	0.7	1.1	0.0
TOTAL	58.2	100.0	100.0 👘

Grade 2

Two types of profile have been mapped as Grade 2. The profiles on the raised land along the eastern edge of the site suffer from a minor droughtiness limitation. They have medium sandy loam topsoils over medium sandy loam and sandy clay loam subsoils. They are deep and well drained and were assessed as Wetness Class I (see Appendix 3). The land either side of the track has a minor wetness limitation due to poor drainage conditions caused by a slowly permeable layer starting below 60cm and gleying starting below 40cm. They were assessed as Wetness Classes II and have medium sandy loam topsoils.

Subgrade 3a

The majority of the agricultural land, 31.4ha, has been mapped as Subgrade 3a. The areas to the west of Nythefield Copse and along the northern side of the track have a moderate droughtiness limitation. The profiles are deep and well drained, and were assessed as Wetness Class I. They have medium sandy loam topsoils and stone contents of up to 16% by volume in the topsoil and 42% by volume in the subsoil. The profiles mapped as Subgrade 3a to the south of the track and in the south east corner of the site have a moderate wetness limitation. These profiles have been assessed as Wetness Classes II and III depending on the depth to gleying below 64cm). The topsoil textures near the track are medium clay loams and medium sandy loams. The profiles in the south east corner of the site also have peaty subsoils and organic topsoils.

Subgrade 3b

The areas of Subgrade 3b land along the western edge of the site suffer from a moderate droughtiness limitation. The profiles are deep and well drained and were assessed as Wetness Class I. The textures of the profiles are medium sandy loam topsoils with medium sand and loamy medium sand subsoils. These light textures together with stone contents of more than 30% by volume in the topsoil and more than 60% by volume in the subsoil limit the amount of water available for crops. The area of Subgrade 3b profiles to the north-east of Nythefield Copse have a moderate wetness limitation. They have medium clay loam topsoils over clay and peat subsoils. Gleying and slowly permeable layers are present below 30cm so they were assessed as Wetness Class IV.

Grade 4

The area mapped as Grade 4 has a severe wetness limitation. The topsoils are shallow clays and organic clays over clays, and to the south of Nythefield Copse over peaty horizons. Gleying and slowly permeable layers are present below 30cm so the profiles were assessed as Wetness Class IV. To the south of Nythefield Copse there are profiles with organic clay topsoils over peaty subsoils. These profiles have evidence of wetness in their topsoils and were assessed as Wetness Class III.

Other Land

Within the site Nythefield copse is mapped as non agricultural land and the farm track is shown as urban. Two small ponds have been shown as open water.

Resource Planning Team Taunton Statutory Unit May 1995

APPENDIX 1

REFERENCES

INSTITUTE OF GEOLOGICAL SCIENCES (1976) Drift Edition, Sheet 298, Salisbury, 1:50,00 scale.

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MAFF (1974) Agricultural Land Classification Map, Sheet 167, Provisional 1:63,360 scale.

MAFF (1988) Agricultural Land Classification of England and Wales (Revised Guidelines and Criteria for grading the quality of agricultural land), Alnwick.

METEOROLOGICAL OFFICE (1989) Climatological Data for Agricultural Land Classification.

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SOIL SURVEY OF ENGLAND AND WALES (1983) Sheet 5, Soils of South West England, 1:250,000 scale.

DESCRIPTION OF GRADES AND SUBGRADES

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 include top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

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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 (eg cereals and forage crops) the yields of which are variable. In most climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

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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.

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Descriptions of other land categories used on ALC maps

Urban

Built-up or 'hard' uses with relatively little potential for a return to agriculture including: housing, industry, commerce, education, transport, religious buildings, cemeteries. Also, hard-surfaced sports facilities, permanent caravan sites and vacant land; all types of derelict land, including mineral workings which are only likely to be reclaimed using derelict land grants.

Non-agricultural

'Soft' uses where most of the land could be returned relatively easily to agriculture, including: private park land, public open spaces, sports fields, allotments and soft-surfaced areas on airports/airfields. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

Agricultural buildings

Includes the normal range of agricultural buildings as well as other relatively permanent structures such as glasshouses. Temporary structures (eg polythene tunnels erected for lambing) may be ignored.

Open water

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Includes lakes, ponds and rivers as map scale permits.

Land not surveyed

Agricultural land which has not been surveyed.

Where the land use includes more than one of the above landcover types, eg buildings in large grounds, and where may be shown separately. Otherwise, the most extensive cover type will usually be shown.

Source: MAFF (1988) Agricultural Land Classification of England and Wales (Revised Guidelines and Criteria for Grading the Quality of Agricultural Land), Alnwick.

APPENDIX 3

DEFINITION OF SOIL WETNESS CLASSES

Wetness Class I

The soil profile is not wet within 70 cm depth for more than 30 days in most years.

Wetness Class II

The soil profile is wet within 70 cm depth for 31-90 days in most years or, if there is no slowly permeable layer within 80 cm depth, it is wet within 70 cm for more than 90 days, but not wet within 40 cm depth for more than 30 days in most years.

Wetness Class III

The soil profile is wet within 70 cm depth for 91-180 days in most years or, if there is no slowly permeable layer within 80 cm depth, it is wet within 70 cm for more than 180 days, but only wet within 40 cm depth for between 31 and 90 days in most years.

Wetness Class IV

The soil profile is wet within 70 cm depth for more than 180 days but not within 40 cm depth for more than 210 days in most years or, if there is no slowly permeable layer within 80 cm depth, it is wet within 40 cm depth for 91-210 days in most years.

Wetness Class V

The soil profile is wet within 40 cm depth for 211-335 days in most years.

Wetness Class VI

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The soil profile is wet within 40 cm depth for more than 335 days in most years.

Notes: The number of days specified is not necessarily a continuous period. 'In most years' is defined as more than 10 out of 20 years.

Source: Hodgson, J M (in preparation), Soil Survey Field Handbook (revised edition).

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SITE NA	ME		PROF	FILE NO.	SLOPE	AND AS	PECT	LA	ND USE		A	Rainfall:	798 mm		PARENT MA	TERIAL	<u> </u>
Alderbury	y Farm		Pit 1	(ASP 29)	0°			Cer	real		A	Г О :	1511 day ^o	°C	Valley Gravel		
JOB NO.	-	-	DAT	E	GRID I	REFEREN	CE	DE	SCRIBED B	Y	FC	Days:	177		SOIL SAMPL	E REFEREN	CES
24/95			27/4/	95	SU 178	256		HL	J		CI	imatic Grade:	1		RPT/HLJ/151		
											Ex	posure Grade:	1	I	<u> </u>		
Horizon No.	Lowest Av. Depth (cm)	Matrix Sto Texture (Ped Face) Siz Colours Fie MSL 10YR42 5%		Stonine Size,Ty Field M	ess: /pe, and /tethod Mottling Abundance, Contrast, Siz and Colour		ize	Mangan Concs	Structure: Ped Developmen Size and Shape		Consistence	Structural Condition	Pores (Fissures)	Roots: Abundance and Size	Calcium Carbonate Content	Horizon Boundary: Distinctness and form	
1	35	MS	L	10YR42	5% HR <u>44</u> % HR< 49% H	R >2cm(S) None 2cm(S+D) IR Total			None	WCSAB (assumed to stones)	due	Friable	M (assumed)	GOOD	FF + VF	-	Gradual smooth
2	90	sci	L	10YR44	13% HR <u>47</u> % HR 60% H	13% HR> 2cm(S) <u>47% HR<2cm(S+D)</u> 60% HR Total			None	Weak (too stony))	Friable	M (assumed)	Good	FVF	-	Gradual smooth
3	120	мs		10YR54	15%HR <u>55</u> %HR 70% H	60% HR Total 15%HR >2cm(S) 55%HR <2cm (S) 70% HR Total			None	Weak (too stony)		Very Friable	M (assumed)	Good	None	-	-
Profile G	leyed From	n: 1	Not gl	eyed		Availabl	Whea	nt: 72 m	1m			Final ALC Grade: 3b					
Depth to Slowly Permeable Horizon: No spl Wetness Class: I					Moisture	e Deficit	toes: 61 m at: 108 n toes: 101 n	Des: 61 mm t: 108 mm Des: 101 mm			Main Limiting Factor(s): Drought						
Wetness Grade: 1					Moisture Balance W			nt: -35 m	າກ			Remarks:					
SE336						Po Droughtiness Grade:			Potatoes: -40 mm 3b (Calculated t			cm)					

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SITE NA	MĒ		PROF	FILE NO.	SLOPE	AND AS	PECT	LAN	ND USE		Av	/ Rainfall:	798 mm		PARENT MATERIAL		
Alderbury	/ Farm		Pit 2	(ASP10)	0°			Cere	eal		AT	FO :	1511 day °C		Valley Gravel		
JOB NO.		_	DAT	E	GRID	EFEREN	CE	DESCRIBED BY			FC	Days:	177	ľ	SOIL SAMPLE REFERENCES		
24/95			27/4/	95	SU 179 260			HLJ			Cli Ex	imatic Grade:	1		RPT/HLJ/152,153		
Horizon No.	orizon Av. o. Depth (cm) Texture Matrix St (Ped Face) Si Colours Fi		Stonine Size,Ty Field N	ess: ype, and Method Mottling Abundance, Contrast, Size and Colour		ze	Mangan Concs	gan S S S S S S S S S S S S S S S S S S S		Consistence	Structural Condition	Pores (Fissures)	Roots: Abundance and Size	Calcium Carbonate Content	Horizon Boundary: Distinctnes and form		
1	33	MS	SL.	10YR43	8% HR <u>25</u> % HR <u>33% H</u>	8% HR >2cm(S) None 25% HR <2cm(S+D) 33% HR Total		None		WCSAB		Friable	Good Good		MF+VF	-	Clear Smooth
2	55	MS	SL.	10YR44	15% HI <u>47</u> % HR 62%HI	15% HR >2cm(S) None <u>47</u> % HR <2cm(S+D) 62%HR Total			None	Too stony		Friable	M (assumed)	Good	CF+VF	-	Clear Irregular
3	120	LN	IS	10YR62	25% HI <u>41</u> % HR 66% H	l>2cm (S) <2cm (S+D) R Total	None		None ·	Too stony		Very Friable	M (assumed)	Good	None	-	
Profile G	leyed Fror	n:	Not gl	eyed		Availabl	e Water N	t: 71 m	71 mm			Final ALC Grade: 3b					
Depth to Permeabl Wetness	Depth to Slowly Permeable Horizon: No spl Wetness Class: I					Moisture	e Deficit	atoes: 60 mm eat: 108 mm				Main Limiting Factor(s): Drought					
Wetness Grade: 1								Potato	oes: 101 n	nm							
						Moisture	e Balance	Wheat	t: -36 m	1 m			Remarks:				
								rotato	oes: -41 ff								
SE336	SE336					Droughtiness Grade:			3b (C	3b (Calculated to 120 cm)							

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SITE NAME PROFILE NO. Alderbury Farm Pit 3 (ASP43)					SLOPE	AND AS	PECT	LA	ND USE				200		PARENT MATERIAL			
Alderbury	Farm		Pit 3 ((ASP43)	0°		i	Ce	real			caintail:	/98 mm		Alluvium			
JOB NO.			DATE	3	GRID F	REFEREN	CE	DE	SCRIBED B	Y	FCD). Days:	177 177	Č	SOIL SAMPLE REFERENCES			
24/95			1/5/95	5	SU 177	254		н	.J		Clim	natic Grade:	1		RPT/HLJ/158			
											Expo	osure Grade:	1					
Horizon No.	Lowest Av. Depth (cm)	Tex	ture	Matrix (Ped Face) Colours	Stonine Size,Ty Field M	Stoniness: Size, Type, and Field Method		Mottling Abundance, Contrast, Size and Colour		Structure: Ped Developme Size and Shape	ent (Consistence	Structural Condition	Pores (Fissures)	Roots: Abundance and Size	Calcium Carbonate Content	Horizon Boundary: Distinctness and form	
1	30	MS	L	10YR43	6%HR <u>10</u> %HR < 16%HF	%HR >2cm(S) None 2%HR <2œn (S+D) 6%HR Total		None		WCSAB	1	Friable	Good	Good	FF	-	Gradual smooth	
2	77	MS	L	10YR44	12%HR 20%HR ≪ 32%HF	>2cm (S) None 2cm (S+D) & Total			None	WCSAB	3 Friable		Good	Good	FVF	-	Gradual smooth	
3	95	MS	L	10YR53	2%HR> <u>7</u> %HR< 9%HR	>2cm(S) 2cm(S+D) Total	CDFO (10YR64,50	6) Few		WCAB]	Friable	Good	Good	FVF	-	Gradual smooth	
4	120	нс	L	10YR53	8%HR <u>30</u> %HR 38% H	>2cm (S) <2cm(S+D) R Total	CDMO (75YR58,66	6)	Common	WCSAB (too stony))	Firm	Moderate	Good (well fissured)	None	-	-	
Profile G	leyed From	n: '	77cm			Availabl	e Water V	Whea	at: 129 п	um			Final ALC	Grade:	2			
Depth to Permeabl	Slowly e Horizon	: 1	no spl			Moisture	Deficit V	Potat Whea	toes: 91 mi at: 108 n	n 1m			Main Limi	ting Factor(s	;): Drought			
Wetness	Class:]	I					Pota	toes: 101 n	ım								
Wetness	Grade:		1			Moisture	Balance N	W/her	at∙ 22 mi	m							·····	
						IVIOIStuit		Data	11. <u>22</u> III				Remarks:					
~~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						_		rota	ues: -10 m				H4 has pat	ches of light	er and heavier	textured mat	erial.	
SE336	277MSL10YR4395MSL10YR54120HCL10YR5Profile Gleyed From:77cmDepth to Slowly Permeable Horizon:no splWetness Class:IWetness Grade:1					Drought	iness Grade:		2 (Ca	Iculated to	120 cm	n)	Only just 2	on drought,	nearly 3a. M	apped in 3a u	INI(.	

SITE NA	SITE NAME PROFILE NO.			FILE NO.	SLOPE	AND AS	PECT	LA	ND USE		Av	Rainfall:	798 mm		PARENT MATERIAL		
Alderbury	y Farm		Pit 4	(ASP16)	0°			Per	rmanent Gras	SS	AT	'O :	1511 day ^c	°C	Valley Gravel		
JOB NO.	<u> </u>		DAT	E	GRID F	EFEREN	ICE	DE	ESCRIBED B	Y	FC	Days:	177		SOIL SAMPLE REFERENCES		
24/95		ļ	1/5/9	5	SU 181	259		н	J		Cli	matic Grade:	1		RPT/HLJ/155		
	<u>.</u>			· · ·							Ex	posure Grade:	1				
Horizon No.	Lowest Av. Depth (cm)	Tex	exture Matrix Stoni (Ped Face) Size, Colours Field		Stonine Size,Ty Field M	is: Mottling Abundance, Contrast, Size and Colour		, ize	Mangan Concs	Ped Developme Size and Shape		Consistence	Structural Condition	Pores (Fissures)	Roots: Abundance and Size	Calcium Carbonate Content	Horizon Boundary: Distinctness and form
1	22	MS	L	10YR44	5% H (\	5% HR Total (Vis) FDFO (7.5YR58)			None	WCSAB		Friable	М	Good	MF+VF	-	Clear Smooth
2	43	мс	Ľ	10YR54	1%HR Total CDI (Vis) (10'		CDFO (10YR66)		None	MM+CSA	B	Friable	M (G)	Good	CF+VF	-	Gradual Smooth
3	70	HC	L	10YR53	1% H	R Total /is)	CDFD + G (10YR56,6	2)	None	(WCPR brea to) MCSAB	king	Friable	М	Good	FVF	-	Clear Smooth
4	100+	с		10YR53	1%H	R Total /is)	CDMD + C (10YR68,7	G None		WCPR		Firm	Р	Poor	FVF	-	-
Profile G	leyed From	m: 4	43cm			Availabl	le Water	Whea	at: 135 r	nm			Final ALC	Grade:	2		
Depth to Slowly Permeable Horizon: 70cm Wetness Class: II						Moisture	e Deficit	atoes: 112 mm eat: 108 mm atoes: 101 mm			Main Limiting Factor(s): Wetness and Drought						
						Moisture Balance Wheat: 27 mm Remark						Remarks:	Remarks:				
SE336						Drought	tiness Grade:		2 (Ca	alculated to	120 c	cm)					

SITE NA	ITE NAME PR		PROF	TLE NO.	SLOPE	E AND ASPECT			ND USE		Ι.		-	1	PARENT MATERIAL			
Alderbury	y Farm		Pit 5	(ASP7)	0°			Cer	real		AV		/98 mm	°C	Valley Gravel		•	
JOB NO.	<u>-</u>		DAT	E	GRID İ	EFEREN	CE	DE	SCRIBED B	Y	FC	C Days:	177		SOIL SAMPLE REFERENCES			
24/95			1/5/9:	5	SU 180	261		HLJ			Climatic Grade:		1 RPT/HLJ/157					
											Ex	posure Grade:	1					
Horizon No.	Lowest Av. Depth (cm)	owest Nv. Depth cm) Texture Matrix (Ped Face) Colours		Stonine Size,Ty Field N	iness: Type, and Mottling Abundance Contrast, S and Colou		ze	Mangan Concs	Ped Developmer Size and Shape		Consistence	Structural Condition	Pores (Fissures)	Roots: Abundance and Size	Calcium Carbonate Content	Horizon Boundary: Distinctnes and form		
1	33	MS	L	10YR43	1%HR <u>_9</u> %HR 10% HI	<pre>L >2cm(S) None <2cm(S+D) R Total</pre>			None	WCSAB		Friable	Good	Good	CF + VF	-	Gradual Smooth	
2	50	MS	L	10YR44	8%HR>2cm (S <u>28</u> %HR<2cm(S+I 36% HR Total		None		None	WCSAB		Friable	Good	Good	FF + VF	-	Gradual Smooth	
3	90	LM	IS	10YR63	10%HF <u>32</u> %HR 42% H	10%HR>2cm(S) N 32%HR<2cm(S+D) 42% HP Total			None	WFGR		Very Friable	Good	Good	MF + VF	-	Clear Smooth	
4	110	MS	•	10YR74	40%H	R Total /is)	None		None	WCSAB		Very Friable	Good	Good	None	-	-	
Profile G	leyed From	n:	Not gle	eyed		Availabl	e Water	Whea	ıt: 95 m	m			Final ALC	Grade:	3a			
Depth to Permeabl Wetness	Depth to Slowly Permeable Horizon: No spl Wetness Class: I					Moisture	e Deficit	Potat Whea	toes: 82 m at: 108 r	m nm			Main Limiting Factor(s): Drought					
Wetness Grade: 1								Potat	toes: 101 r	nm								
						Moisture	e Balance	Whea	at: -13 n	nm			Remarks					
						F			toes: -19 n	nm			kemarks:					
SE336	SE336						Droughtiness Grade:			3a (Calculated to 120 cm)								

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