

**A1**  
**Arun District Local Plan**  
**Site 3: Land north of Water Lane,**  
**Angmering**  
**Agricultural Land Classification**  
**ALC Map and Report**  
**April 1994**

# AGRICULTURAL LAND CLASSIFICATION REPORT

## ARUN DISTRICT LOCAL PLAN

### SITE 3 : LAND NORTH OF WATER LANE, ANGMERING

#### 1. Summary

- 1.1 ADAS was commissioned by MAFF's Land Use Planning Unit to provide information on land quality for a number of sites in the Arun District of West Sussex. The work forms part of MAFF's statutory input to the preparation of the Arun District Local Plan.
- 1.2 Site 3 comprises 10.3 hectares of land located between Water Lane and the A27 at Angmering, West Sussex. An Agricultural Land Classification, (ALC), survey was carried out during April 1994. The survey was undertaken at a detailed level of approximately one boring per hectare. A total of 10 borings and one soil inspection pit were described in accordance with MAFF's 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 a long term limitation on its use for agriculture.
- 1.3 At the time of the survey the land use was predominantly cereals, with areas of permanent grass in the north-east and south of the site. The area mapped as non-agricultural comprises an area of deposited soil rubble. The farm buildings mapped are horse stables.
- 1.4 The distribution of grades and subgrades is shown on the attached ALC map and the areas and extent are given in the table below. The map has been drawn at a scale of 1:5,000. It is accurate at this scale, but any enlargement would be misleading.

**Table 1 : Distribution of Grades and Subgrades**

Grade	Area (ha)	% of Site	% of Agricultural Land
2	2.6	25.0	25.2
3a	1.5	14.4	14.6
3b	6.2	59.6	<u>60.2</u>
Non-agricultural land	0.1	1.0	100 (10.3 ha)
Farm Buildings	<u>&lt;0.1</u>	<u>neg</u>	
Total area of site	10.4	100.0	

- 1.5 Appendix I gives a general description of the grades, subgrades and land use categories identified in the survey. The main classes are described in terms of the type of limitation that can occur, the typical cropping range and the expected level and consistency of yield.

1.6 The agricultural land has been classified as a mixture of Grade 2 and Subgrades 3a and 3b. In the north of the site, slowly permeable subsoils occur at shallow depths to significantly impair drainage. This results in soil workability and wetness restrictions. Across the remainder of the site soil droughtiness is the predominant limitation, sometimes in combination with minor soil wetness limitations. Moisture availability is determined by the depth to underlying gravelly deposits and will affect crop growth and yields.

**2. Climate**

2.1 The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions.

2.2 The main parameters used in the assessment of an overall climatic limitation are average annual rainfall, as a measure of overall wetness, and accumulated temperature (degree days Jan-June), as a measure of the relative warmth of a locality.

2.3 A detailed assessment of the prevailing climate was made by interpolation from a 5km gridpoint dataset (Met. Office 1989). The details are given in the table below and these show that there is no overall climatic limitation affecting the site. However climatic factors do interact with soil properties to influence soil wetness and droughtiness limitations. At this locality the crop adjusted moisture deficits are relatively high in a regional context. High crop adjusted moisture deficits increase the likelihood of soil droughtiness restrictions.

2.4 No local climatic factors such as exposure or frost risk are believed to affect the site.

**Table 2 : Climatic Interpolations**

Grid Reference	TQ075 054	TQ075048
Altitude (m)	33	14
Accumulated Temperature (days) (°days, Jan-June)	1507	1530
Average Annual Rainfall (mm)	792	756
Field Capacity (days)	164	157
Moisture Deficit, Wheat (mm)	115	120
Moisture Deficit, Potatoes (mm)	110	116
Overall Climatic Grade	1	1

**3. Relief**

3.1 Land occupies a gently sloping hillside in the north of the site, falling from approximately 35m AOD along the northern boundary of the site to approximately 25 m AOD at Culberry Nursery. The central part of the site is almost flat and lies at approximately 20 m AOD. South of St Deny's nursery the site drops gently to an altitude of approximately 14 m AOD along the southern boundary of the site.

#### **4. Geology and Soil**

- 4.1 British Geological Survey (1972), Sheet 317, Chichester shows most of the site to be underlain by Eocene London Clay. Land immediately east of St Deny's nursery is mapped as valley gravel and land bordering Water Lane as alluvium.
- 4.2 The published soil survey map (SSGB, 1967, 1:25,000) shows five different soil series. The Titchfield Complex is shown adjacent to the northern boundary of the site. These soils are described as a 'range of poorly and imperfectly drained surface-water gley soils developed in Eocene Clay with a variable cover of non-calcareous, more or less flinty, loamy or clayey drift' (SSGB, 1967). South of this series the Swanmore series is mapped. These soils are described as 'non-calcareous surface-water gley soils developed on mottled, or grey, Eocene clays' (SSGB, 1967). Adjacent to Water Lane the Charity series (undifferentiated) is mapped, described as 'well drained brown earths developed in flinty silty head' (SSGB, 1967). The predominant soil type for this site, however, is the Hamble series (deep phase) described as 'well drained brown earths developed in flinty silty head' (SSGB, 1967).
- 4.3 Detailed field examination, however, indicated two broad soil types : well drained or moderately well drained soils overlying gravelly deposits at varying depth and poorly drained soils.

#### **5. Agricultural Land Classification**

- 5.1 Table 1 provides the details of the area measurements for each grade and the distribution of each grade is shown on the attached ALC map.
- 5.2 The location of the soil observation points are shown on the attached sample point map.

##### **Grade 2**

- 5.3 Very good quality agricultural land is limited by a minor soil droughtiness restriction, sometimes in combination with minor soil wetness limitations. Profiles typically comprise deep medium silty clay loam topsoils over similar textured upper subsoils and heavier subsoils. Profiles are either well drained (Wetness Class I), or moderately well drained (Wetness Class II) where there is slight gleying within 40 cm. Land that is moderately well drained may have slightly restricted flexibility of cropping, stocking and cultivations. Profiles are stoneless or slightly stony throughout, though occasionally are very stony at depth. Such land is slightly droughty at this location and may have slightly reduced yield potential.

##### **Subgrade 3a**

- 5.4 Good quality agricultural land is limited by soil droughtiness with some of the land also having soil wetness restrictions. Profiles generally comprise medium silty clay loam topsoils over subsoils which become heavier with depth. Profiles range from

being well to imperfectly drained and contain a total between 1-20% v/v flint. At approximately 65-75 cm the profiles become very stony, containing a total between 55-65% v/v flint. Pit 1 typifies such soils. The restricted available water for crops in such profiles will tend to reduce the level and consistency of crop yield. Some of the land is also subject to potential restrictions in terms of flexibility of cultivations, cropping and stocking because of imperfect drainage. Profiles are gleyed from the surface and slowly permeable at approximately 45-50 cm, placing them into Wetness Class III.

### **Subgrade 3b**

- 5.5 Moderate quality agricultural land is predominantly limited by soil wetness and workability, though in the south of the site land is also limited by significant soil droughtiness restrictions. Land affected by soil wetness typically comprises medium silty clay loam topsoils over similar textured or clay upper subsoils and clay lower subsoils. The soils are gleyed from the surface and slowly permeable at c. 28 cm, placing the profiles into Wetness Class IV. The interaction between these poor drainage characteristics and the topsoil textures at this site means that this land can be graded no higher than Subgrade 3b because soil wetness adversely affects crop growth and yields and reduces the flexibility of cropping and stocking. In the south of the site, shallow gleyed medium silty clay loam profiles over gravelly deposits reduce the available water for crops and grass, thereby reducing yield potential because of significant soil droughtiness restrictions.

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MAFF Ref: EL42/00460

Resource Planning Team  
Guildford Statutory Group  
ADAS Reading

## **SOURCES OF REFERENCE**

British Geological Survey (1972), Sheet No 317, Chichester, 1:63,360 (drift).

MAFF (1988), Agricultural Land Classification of England and Wales : Revised guidelines and criteria for grading the quality of agricultural land.

Meteorological Office (1989), Climatological Data for Agricultural Land Classification.

Soil Survey of Great Britain (1967), Bulletin No. 3, Soils of the West Sussex Coastal Plain and accompanying maps.

## APPENDIX I

### DESCRIPTION OF THE 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 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 or horticultural crops can usually be grown but on some land of this 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 land.

#### **Grade 3 : Good to Moderate Quality Land**

Land with moderate limitations which affect the choice of crops, the timing and type of cultivation, harvesting or the level of yield. When 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 the 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 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 severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

## **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 parkland, public open spaces, sports fields, allotments and soft-surfaced areas on airports. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

## **Woodland**

Includes commercial and non-commercial woodland. A distinction may be made as necessary between farm and non-farm woodland.

## **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**

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, eg. buildings in large grounds, and where map scale permits, the cover types may be shown separately. Otherwise, the most extensive cover type will be shown.

## APPENDIX II

### FIELD ASSESSMENT OF SOIL WETNESS CLASS

#### SOIL WETNESS CLASSIFICATION

Soil wetness is classified according to the depth and duration of waterlogging in the soil profile. Six soil wetness classes are identified and are defined in the table below.

#### Definition of Soil Wetness Classes

Wetness Class	Duration of Waterlogging <sup>1</sup>
I	The soil profile is not wet within 70 cm depth for more than 30 days in most years. <sup>2</sup>
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 only wet within 40 cm depth for 30 days in most years.
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 present within 80 cm depth, it is wet within 70 cm for more than 180 days, but only wet within 40 cm depth for between 31-90 days in most years.
IV	The soil profile is wet within 70 cm depth for more than 180 days but not wet within 40 cm depth for more than 210 days in most years or, if there is no slowly permeable layer present within 80 cm depth, it is wet within 40 cm depth for 91-210 days in most years.
V	The soil profile is wet within 40 cm depth for 211-335 days in most years.
VI	The soil profile is wet within 40 cm depth for more than 335 days in most years.

Soils can be allocated to a wetness class on the basis of quantitative data recorded over a period of many years or by the interpretation of soil profile characteristics, site and climatic factors. Adequate quantitative data will rarely be available for ALC surveys and therefore the interpretative method of field assessment is used to identify soil wetness class in the field. The method adopted here is common to ADAS and the SSLRC.

<sup>1</sup>The number of days specified is not necessarily a continuous period.

<sup>2</sup>'In most years' is defined as more than 10 out of 20 years.

**APPENDIX III**  
**SOIL PIT AND SOIL BORING DESCRIPTIONS**

**Contents :**

**Soil Abbreviations - Explanatory Note**

**Soil Pit Descriptions**

**Database Printout - Boring Level Information**

**Database Printout - Horizon Level Information**

## SOIL PROFILE DESCRIPTIONS : EXPLANATORY NOTE

Soil pit and auger boring information collected during ALC fieldwork is held on a computer database. This uses notations and abbreviations as set out below.

### Boring Header Information

- GRID REF** : national 100 km grid square and 8 figure grid reference.
- USE** : Land use at the time of survey. The following abbreviations are used.

<b>ARA</b> : Arable	<b>WHT</b> : Wheat	<b>BAR</b> : Barley
<b>CER</b> : Cereals	<b>OAT</b> : Oats	<b>MZE</b> : Maize
<b>OSR</b> : Oilseed rape	<b>BEN</b> : Field Beans	<b>BRA</b> : Brassicae
<b>POT</b> : Potatoes	<b>SBT</b> : Sugar Beet	<b>FCD</b> : Fodder Crops
<b>LIN</b> : Linseed	<b>FRT</b> : Soft and Top Fruit	<b>FLW</b> : Fallow
<b>PGR</b> : Permanent Pasture	<b>LEY</b> : Ley Grass	<b>RGR</b> : Rough Grazing
<b>SCR</b> : Scrub	<b>CFW</b> : Coniferous Woodland	<b>DCW</b> : Deciduous Wood
<b>HTH</b> : Heathland	<b>BOG</b> : Bog or Marsh	<b>FLW</b> : Fallow
<b>PLO</b> : Ploughed	<b>SAS</b> : Set aside	<b>OTH</b> : Other
<b>HRT</b> : Horticultural Crops		
- GRDNT** : Gradient as estimated or measured by a hand-held optical clinometer.
- GLEYSPL** : Depth in centimetres (cm) to gleying and/or slowly permeable layers.
- AP (WHEAT/POTS)** : Crop-adjusted available water capacity.
- MB (WHEAT/POTS)** : Moisture Balance. (Crop adjusted AP - crop adjusted MD)
- DRT** : Best grade according to soil droughtiness.
- If any of the following factors are considered significant, 'Y' will be entered in the relevant column.

<b>MREL</b> : Microrelief limitation	<b>FLOOD</b> : Flood risk	<b>EROSN</b> : Soil erosion risk
<b>EXP</b> : Exposure limitation	<b>FROST</b> : Frost prone	<b>DIST</b> : Disturbed land
<b>CHEM</b> : Chemical limitation		
- LIMIT** : The main limitation to land quality. The following abbreviations are used.

<b>OC</b> : Overall Climate	<b>AE</b> : Aspect	<b>EX</b> : Exposure
<b>FR</b> : Frost Risk	<b>GR</b> : Gradient	<b>MR</b> : Microrelief
<b>FL</b> : Flood Risk	<b>TX</b> : Topsoil Texture	<b>DP</b> : Soil Depth
<b>CH</b> : Chemical	<b>WE</b> : Wetness	<b>WK</b> : Workability
<b>DR</b> : Drought	<b>ER</b> : Erosion Risk	<b>WD</b> : Soil Wetness/Droughtiness
<b>ST</b> : Topsoil Stoniness		

## Soil Pits and Auger Borings

1. **TEXTURE** : soil texture classes are denoted by the following abbreviations.

<b>S</b> :	Sand	<b>LS</b> :	Loamy Sand	<b>SL</b> :	Sandy Loam
<b>SZL</b> :	Sandy Silt Loam	<b>CL</b> :	Clay Loam	<b>ZCL</b> :	Silty Clay Loam
<b>ZL</b> :	Silt Loam	<b>SCL</b> :	Sandy Clay Loam	<b>C</b> :	Clay
<b>SC</b> :	Sandy Clay	<b>ZC</b> :	Silty Clay	<b>OL</b> :	Organic Loam
<b>P</b> :	Peat	<b>SP</b> :	Sandy Peat	<b>LP</b> :	Loamy Peat
<b>PL</b> :	Peaty Loam	<b>PS</b> :	Peaty Sand	<b>MZ</b> :	Marine Light Silts

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

<b>F</b> :	Fine (more than 66% of the sand less than 0.2mm)
<b>M</b> :	Medium (less than 66% fine sand and less than 33% coarse sand)
<b>C</b> :	Coarse (more than 33% of the sand larger than 0.6mm)

The clay loam and silty clay loam classes will be sub-divided according to the clay content: **M** : Medium (<27% clay) **H** : Heavy (27-35% clay)

2. **MOTTLE COL** : Mottle colour using Munsell notation.
3. **MOTTLE ABUN** : Mottle abundance, expressed as a percentage of the matrix or surface described.

**F** : few <2% **C** : common 2-20% **M** : many 20-40% **VM** : very many 40% +

4. **MOTTLE CONT** : Mottle contrast

**F** : faint - indistinct mottles, evident only on close inspection  
**D** : distinct - mottles are readily seen  
**P** : prominent - mottling is conspicuous and one of the outstanding features of the horizon

5. **PED. COL** : Ped face colour using Munsell notation.
6. **GLEYS** : If the soil horizon is gleyed a 'Y' will appear in this column. If slightly gleyed, an 'S' will appear.
7. **STONE LITH** : Stone Lithology - One of the following is used.

<b>HR</b> :	all hard rocks and stones	<b>SLST</b> :	soft oolitic or dolimitic limestone
<b>CH</b> :	chalk	<b>FSST</b> :	soft, fine grained sandstone
<b>ZR</b> :	soft, argillaceous, or silty rocks	<b>GH</b> :	gravel with non-porous (hard) stones
<b>MSST</b> :	soft, medium grained sandstone	<b>GS</b> :	gravel with porous (soft) stones
<b>SI</b> :	soft weathered igneous/metamorphic rock		

Stone contents (>2cm, >6cm and total) are given in percentages (by volume).

8. **STRUCT** : the degree of development, size and shape of soil peds are described using the following notation:

degree of development    **WK** : weakly developed            **MD** : moderately developed  
   **ST** : strongly developed

ped size                            **F** : fine                                    **M** : medium  
   **C** : coarse                                **VC** : very coarse

ped shape                            **S** : single grain                        **M** : massive  
   **GR** : granular                            **AB** : angular blocky  
   **SAB** : sub-angular blocky        **PR** : prismatic  
   **PL** : platy

9. **CONSIST** : Soil consistence is described using the following notation:

**L** : loose    **VF** : very friable    **FR** : friable    **FM** : firm    **VM** : very firm  
**EM** : extremely firm            **EH** : extremely hard

10. **SUBS STR** : Subsoil structural condition recorded for the purpose of calculating profile droughtiness : **G** : good    **M** : moderate    **P** : poor

11. **POR** : Soil porosity. If a soil horizon has less than 0.5% biopores >0.5 mm, a 'Y' will appear in this column.

12. **IMP** : If the profile is impenetrable to rooting a 'Y' will appear in this column at the appropriate horizon.

13. **SPL** : Slowly permeable layer. If the soil horizon is slowly permeable a 'Y' will appear in this column.

14. **CALC** : If the soil horizon is calcareous, a 'Y' will appear in this column.

15. Other notations

**APW** : available water capacity (in mm) adjusted for wheat

**APP** : available water capacity (in mm) adjusted for potatoes

**MBW** : moisture balance, wheat

**MBP** : moisture balance, potatoes

SOIL PIT DESCRIPTION

Site Name : ARUN L.P. SITE 3

Pit Number : 1P

Grid Reference: TQ07500510    Average Annual Rainfall : 767 mm  
 Accumulated Temperature : 1524 degree days  
 Field Capacity Level : 159 days  
 Land Use : Cereals  
 Slope and Aspect : 01 degrees S

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 28	MZCL	10YR43 00	3	10	F	
28- 46	MZCL	10YR54 00	0	1	F	MDCSAB
46- 66	HZCL	10YR54 44	0	1	M	MDCSAB
66- 80	C	10YR54 44	0	55	M	
80-120	C	10YR54 44	0	65	M	

Wetness Grade : 1                      Wetness Class : I  
 Gleying : cm  
 SPL : No SPL

Drought Grade : 3A                    APW : 119mm    MBW : 3 mm  
 APP : 115mm    MBP : 3 mm

FINAL ALC GRADE : 3A  
 MAIN LIMITATION : Droughtiness

SAMPLE NO.	GRID REF	USE	ASPECT	--WETNESS--		-WHEAT-		-POTS-		M.REL		EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
				GRDNT	GLEYSPL	CLASS	GRADE	AP	MB	AP	MB					
1	TQ07500540	CER	SW	03	0 028	4	3B		0	0				WE	3B	
1P	TQ07500510	CER	S	01		1	1	119	3	115	3	3A		DR	3A	SL. GLEYED 46
2	TQ07500530	CER	SW	03	0 028	4	3B		0	0				WE	3B	
3	TQ07500520	CER	SW	01	056	1	1	89	-27	99	-13	3B		DR	3A	IMPEN 68 RE 1P
4	TQ07400510	CER	SW	02	0 048	3	3A	104	-12	108	-4	3A		WE	3A	
5	TQ07500510	CER	SW	02		1	1	103	-13	115	-3	3A		DR	3A	IMPEN 71 RE 1P
5A	TQ07460510	CER			080 080	2	2	146	28	122	9	2		WD	2	SL. GLEYED 30
6	TQ07400500	CER				1	1	141	23	122	7	2		DR	2	SL. GLEYED 60
7	TQ07500500	CER				1	1	152	34	122	7	2		DR	2	SL. GLEYED 50
8	TQ07500490	PGR	S	02	0 020	4	3B		0	0				WE	3B	SL GLEYD 20-45
9	TQ07500480	PGR	S	02	0	2	2	70	-50	70	-46	3B		DR	3B	IMP 45 STONES

SAMPLE	DEPTH	TEXTURE	COLOUR	---MOTTLES---			PED	---STONES---			STRUCT/	SUBS						
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC
1	0-28	mzc1	10YR42 00	10YR68 00	C			Y	6	0	HR	20						
	28-60	c	10YR71 00	75YR68 00	M			Y	0	0	HR	1		P				Y
1P	0-28	mzc1	10YR43 00	10YR56 00	F				3	0	HR	10						
	28-46	mzc1	10YR54 00	10YR56 00	F				0	0	HR	1	MDCSAB	FR	M			
	46-66	hzc1	10YR54 44	10YR56 00	M			S	0	0	HR	1	MDCSAB	FR	M			SL. GLEYED
	66-80	c	10YR54 44	10YR56 00	M			S	0	0	HR	55		FM	M			SL. GLEYED
	80-120	c	10YR54 44	10YR56 00	M			S	0	0	HR	65		FM	M			SL. GLEYED
2	0-28	mzc1	10YR42 00	10YR58 00	C			Y	3	0	HR	10						
	28-46	mzc1	25Y 63 00	75YR58 71	M			Y	0	0	HR	15		P				Y
	46-65	c	10YR71 00	75YR58 00	M			Y	0	0	HR	1		P				Y
RE 1P, SITE 4 ARUN																		
3	0-35	mzc1	10YR42 32	10YR58 00	F		00M00 00		4	0	HR	20						
	35-56	mc1	10YR53 00	75YR43 61	M		00M00 00		0	0	HR	10			M			
	56-68	c	10YR53 00	75YR46 61	M		00M00 00	Y	0	0	HR	10			P			Y
4	0-35	mzc1	10YR42 00	10YR58 00	C		00M00 00	Y	1	0	HR	6						
	35-48	mzc1	10YR53 00	75YR58 00	F		00M00 00	Y	0	0	HR	6			M			
	48-80	c	10YR53 00	75YR58 00	C		00M00 00	Y	0	0	HR	15			P			Y
5	0-30	mzc1	10YR43 00	10YR58 00	C		00M00 00	S	3	0	HR	10						OCH ROOT MOTTLES
	30-58	mc1	10YR54 44						0	0	HR	1			M			
	58-68	hc1	10YR54 00	75YR58 00	F				0	0	HR	1			M			
	68-71	c	10YR54 00	75YR58 00	F				0	0	HR	5			M			
5A	0-30	mzc1	10YR43 00						2	0	HR	6						
	30-60	mzc1	10YR54 00	10YR56 00	M			S	0	0		0			M			SL. GLEYED
	60-80	hzc1	10YR54 00	10YR58 00	M			S	0	0		0			M			SL. GLEYED
	80-120	c	10YR53 54	75YR68 00	M			Y	0	0		0			P			Y
6	0-30	mzc1	10YR44 00						1	0	HR	5						
	30-60	mzc1	10YR44 00						0	0		0			M			
	60-70	hzc1	10YR44 00	10YR56 00	C			S	0	0		0			M			SL. GLEYED
	70-80	hzc1	10YR44 00	10YR56 00	M			S	0	0		0			M			SL. GLEYED
	80-105	hzc1	10YR44 00	10YR56 00	M			S	0	0	HR	10			M			SL. GLEYED
7	0-30	mzc1	10YR43 00						1	0	HR	5						
	30-50	mzc1	10YR54 00	10YR56 00	F				0	0		0			M			
	50-90	hzc1	10YR54 00	10YR56 00	M			S	0	0		0			M			SL. GLEYED
	90-120	c	10YR54 00	10YR54 00	M			S	0	0		0			M			SL. GLEYED
8	0-20	mzc1	10YR53 00	10YR56 00	C			Y	4	0	HR	15						OCH ROOT MOTTLES
	20-45	mzc1	10YR54 00	10YR56 00	M			S	0	0	HR	5			M			Y
	45-70	c	10YR53 54	75YR68 51	M			Y	0	0	HR	1			P			Y
Q SPL (SL. GLEYED)																		
9	0-25	mzc1	10YR53 52	75YR46 00	M			Y	2	0	HR	15						
	25-40	mzc1	10YR53 00	10YR56 52	C			Y	0	0	HR	10			M			
	40-45	mzc1	10YR53 00	10YR56 51	C			Y	0	0	HR	35			M			
RE 1P, SITE 2 ARUN																		