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NEW FOREST DISTRICT LOCAL PLAN
Land at Station Road, Fordingbridge including Objector sites 38 and 68

Agricultural Land Classification
ALC Map and Summary Report

February 1997

Resource Planning Team
Eastern Region
FRCA Reading

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AGRICULTURAL LAND CLASSIFICATION REPORT

NEW FOREST DISTRICT LOCAL PLAN
LAND AT STATION ROAD, FORDINGBRIDGE
INCLUDING OBJECTOR SITES 38 and 68

Introduction

1 This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of 23 ha of land at Station Road Fordingbridge The survey was carried out in February 1997

2 The survey was commissioned by Ministry of Agriculture Fisheries and Food (MAFF) Land Use Planning Unit (Reading) in connection with the New Forest District Local Plan (Objector sites) This survey supersedes previous ALC surveys on this land including a reconnaissance survey for the Fordingbridge Township Review undertaken in 1977 (ADAS Ref 1508/004/77)

3 Prior to 1 April 1997 the work was conducted by members of the Resource Planning Team in the Guildford Statutory Group in ADAS After this date the work was completed by the same team as part of the Farming and Rural Conservation Agency (FRCA) The land has been graded in accordance with the published MAFF ALC guidelines and criteria (MAFF 1988) A description of the ALC grades and subgrades is given in Appendix I

4 At the time of survey the land on the site was in grassland uses An area to the east of the site was not surveyed due to difficulties in obtaining permission to enter the land within the timescale for the survey work

Summary

5 The findings of the survey are shown on the enclosed ALC map The map has been drawn at a scale of 1 10 000 it is accurate at this scale but any enlargement would be misleading

6 The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1 (overleaf)

7 The fieldwork was conducted at an average density of one boring per hectare within the surveyed area A total of 20 borings and 2 soil pits were described

Table 1 Area of grades and other land

Grade/Other land	Area (hectares)	% Total site area	% Surveyed Area
2	2 4	10 5	14 1
3a	6 0	26 2	35 3
3b	4 1	17 9	24 1
4	3 9	17 0	22 9
5	0 6	2 6	3 5
Agricultural land not surveyed	2 1	9 2	
Other land	3 8	16 6	
Total surveyed area	17 0	74 2	99 9
Total site area	22 9	100	

8 The majority of land within the survey area is limited by soil droughtiness due to the presence of stony soils overlying gravel The deeper and less stony soil variants attain a Grade 2 classification (very good quality land) whist the majority are graded either Subgrade 3a (good quality land) or 3b (moderate quality land) depending upon the depth to gravel and the volume of stones in the soil profile A small area of land to the extreme south east corner of the site which may comprise made ground is also mapped as Subgrade 3b Within valleys to the centre and south of the survey area contrasting soils with severe wetness limitations are classified as Grade 4 (poor quality land) or Grade 5 (very poor quality land) The soils suffer from high groundwater levels and are waterlogged for long periods during the year Some additional areas of land are included in the Grade 4 mapping unit where gradients of 13° were recorded These steeply sloping areas occur to the south of Station Road and to the east of Packham House

Factors Influencing ALC Grade

Climate

9 Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics

10 The key climatic variables used for grading this survey area are given in Table 2 and were obtained from the published 5km grid datasets using the standard interpolation procedures (Met Office 1989)

Table 2 Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	SU 142145
Altitude	m AOD	40
Accumulated Temperature	day°C (Jan June)	1517
Average Annual Rainfall	mm	874
Field Capacity Days	days	180
Moisture Deficit Wheat	mm	107
Moisture Deficit, Potatoes	mm	99

11 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

12 The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR) as a measure of overall wetness and accumulated temperature (ATO January to June) as a measure of the relative warmth of a locality

13 The combination of rainfall and temperature at this survey area mean that there is no overall climatic limitation in terms of agricultural land quality and the site is climatically grade 1 No local climatic factors are believed to adversely affect the survey area

Site

14 The survey area straddles a valley running approximately north to south through its area and also includes part of the valley of the Ashford Water to the extreme south Altitudes range from less than 30m AOD in the south to around 40m AOD on the flatter upper slopes On these upper valley sides the land is flat or gently sloping whilst on middle and lower slopes steeper gradients are found In general gradients are less than 7° but small areas of significantly steeper slopes are found to the south of Station Road and to the east of Packham House In these areas gradients of 13° were measured which give rise to a limitation in terms of agricultural land quality

Geology and soils

15 The published 1 50 000 scale geological map sheet covering the survey area (BGS 1976) indicates that the majority of its area lies on valley gravel deposits The more detailed Mineral Assessment Report (IGS 1980) at a scale of 1 25 000 confirms this geology and indicates that the gravels belong to the 6th terrace which typically comprises clayey flint gravel Within the valley to the north of Packham House London Clay is exposed with a smaller area of Bagshot Beds immediately to the south of Station Road A small area of alluvial deposits is mapped along the southern boundary associated with the Ashford Water

16 The most detailed published soil map for the area is the 1 250 000 scale Soil Map of South East England (SSEW 1983) The area is shown as the Sonning 1 Association, which is described in the legend accompanying the map as comprising Well drained flinty coarse loamy and sandy soils mainly over gravel Some coarse loamy over clayey soils and coarse loamy over clayey with slowly permeable subsoils and slight seasonal waterlogging Soils within the survey area generally accord with this description, although some very poorly drained soils also occur in the valley bottoms

Agricultural Land Classification

17 The details of the classification of the site are shown on the attached ALC map and the area statistics of each grade are given in Table 1 page 2

18 The location of the auger borings and pits is shown on the attached sample location map and the details of the soils data are presented in Appendix III

Grade 2

19 Grade 2 (very good quality land) is comparatively limited in extent being confined to area of deeper less stony soils over gravel or similar soils believed to derived from Bagshot Beds Soils are well drained (wetness class 1 - see Appendix II) light or medium loamy in texture (fine sandy silt loam or medium clay loam topsoils and subsoils) which are typically slightly flinty having 5 10% total volume of flints in the topsoil increasing to up to 15% in the subsoil Below 60 to 100 cm the flint content increases as gravelly horizons are encountered these could not be readily penetrated by soil auger Assuming these impenetrable horizons are similar to those observed in soil pit 2 moisture balance calculations which take into account the available soil moisture reserves and the local climate indicate that such soils will be slightly droughty This may result in lower and less consistent crop yields

Subgrade 3a

19 Subgrade 3a (good quality land) is mapped towards the west of the survey area where soils are well drained (wetness class 1 - see Appendix II) light or medium loamy in texture and generally similar in texture to those described for Grade 2 and are typically slightly flinty having 10-15% total volume of flints in the topsoil (with around 5% volume >2cm) increasing to up to a total 15%- 20% in the subsoil Below 50 to 60 cm the flint content increases as gravelly horizons are encountered these could not be readily penetrated by soil auger Soil pit 2 is representative of the this mapping unit and was dug to investigate the nature of the impenetrable horizons These were found to be loose and rootable with a high content of flints (about 65% by volume) in a coarse sandy loam matrix becoming coarse sand with increasing depth Moisture balance calculations which take into account the available soil moisture reserves and the local climate indicate that such soils will be moderately droughty This may result in a lower and more variable yield potential

Subgrade 3b

20 Moderate quality Subgrade 3b land occurs to the eastern side of the survey area and is associated with shallow stony soils which pass to gravel at shallow depth The soils are well drained (wetness class I) typically comprising similar textures to those in the Subgrade 3a and Grade 2 mapping units The soils are however stonier in the topsoils with up to 30% by volume of flints of which 10-20% are greater than 2cm in size Topsoils may rest directly over gravel horizons or possess a narrow upper subsoil Below a depth of 30-40cm these soils were impenetrable to the soil auger Soil pit 1 typifies these soils and was dug to investigate the nature of the impenetrable horizons At this locality they were found to be loose and rootable with a flint content in some layers in excess of 70% (by volume) Moisture balance calculations which take into account the available soil moisture reserves and the local climate indicate that such soils will be have a high risk of drought This may result in a significantly lower and more variable yield potential Where topsoil stone contents comprise 15% or more by volume of stones > 2cm in size this also forms an additional limitation to agricultural land quality causing land to be graded no higher than Subgrade 3b

21 A small area of land in the extreme south east corner of the survey area is also mapped as Subgrade 3b This area appears to comprise made ground the limited observation suggests that the soil resource may be limited and that fill materials lie close to the surface The clayey subsoils were considered likely to be slowly permeable in nature (wetness class IV) and this coupled with a comparatively shallow soil resource suggests the land is of moderate quality having both wetness and droughtiness limitations

Grade 4

22 Two areas of Grade 4 (poor quality land) are mapped towards the east and south of the survey area The main block of Grade 4 land is associated with a valley feature running through the area The flatter low lying parts of this valley comprise fine loamy and clayey soils Topsoils comprise medium or heavy silty clay loams resting over heavy silty clay loam or silty clay subsoils These in turn rest over gravel layers at about 40 cm underlain, in turn, by a plastic clay These soils are in a water receiving location and accept water seeping from the surrounding lower valley sides This coupled with a high (and difficult to control) groundwater level makes these soils wet for long periods during the year Such land has been assessed as wetness classes IV and V which given the local climate and topsoil textures makes Grade 4 the appropriate classification As indicated this land will be waterlogged for long periods of the year making it unsuitable for arable cropping The wetness will also limit the periods of the year when the land is suitable for grazing by livestock, if poaching and other structural damage to the soil is to be avoided

23 Some additional areas of land are included in the Grade 4 mapping unit where gradients of 13° were recorded These steeply sloping areas occur to the south of Station Road and to the east of Packham House Steep gradients such as these will limit the range and type of agricultural machinery that can be safely and efficiently used

Grade 5

24 Grade 5 (very poor quality land) is confined to a small area of very wet boggy land to the south of the site This land is affected by high groundwater levels and seepage from

adjoining land Due to the low lying position of this area and lack of freeboard drainage improvement is unlikely to be feasible The presence of hydrophilic vegetation (rushes and sedges) and standing water at the time of survey indicates that soils are waterlogged for most of the year Consequently the land has very severe limitations to agricultural use being suited to low intensity grazing uses only

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SOURCES OF REFERENCE

British Geological Survey (1976) *Sheet No 314 Ringwood.*
BGS London

Institute of Geological Sciences (1980) *Mineral Assessment Report 50 Sheet SU11 Fordingbridge* -IGS Nottingham

Ministry of Agriculture Fisheries and Food (1988) *Agricultural Land Classification of England and Wales Revised guidelines and criteria for grading the quality of agricultural land* MAFF London

Met Office (1989) *Climatological Data for Agricultural Land Classification*
Met Office Bracknell

Soil Survey of England and Wales (1983) *Sheet 6 Soils of South East England*
SSEW Harpenden.

APPENDIX I

DESCRIPTIONS 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 (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 severe limitations which restrict use to permanent pasture or rough grazing except for occasional pioneer forage crops

APPENDIX II

SOIL WETNESS CLASSIFICATION

Definitions of Soil Wetness Classes

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

Wetness Class	Duration of waterlogging[1]
I	The soil profile is not wet within 70 cm depth for more than 30 days in most years [2]
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

Assessment of Wetness Class

Soils have been allocated to wetness classes by the interpretation of soil profile characteristics and climatic factors using the methodology described in *Agricultural Land Classification of England and Wales Revised guidelines and criteria for grading the quality of agricultural land* (MAFF 1988)

[1] The number of days is not necessarily a continuous period

[2] In most years is defined as more than 10 out of 20 years

APPENDIX III

SOIL DATA

Contents

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

1 **GRID REF** national 100 km grid square and 8 figure grid reference

2 **USE** Land use at the time of survey The following abbreviations are used

ARA	Arable	**WHT**	Wheat	**BAR**	Barley
CER	Cereals	**OAT**	Oats	**MZE**	Maize
OSR	Oilseed rape	**BEN**	Field Beans	**BRA**	Brassicae
POT	Potatoes	**SBT**	Sugar Beet	**FCD**	Fodder Crops
LIN	Linseed	**FRT**	Soft and Top Fruit	**FLW**	Fallow
PGR	Permanent Pasture	**LEY**	Ley Grass	**RGR**	Rough Grazing
SCR	Scrub	**CFW**	Coniferous Woodland	**DCW**	Deciduous Wood
HTH	Heathland	**BOG**	Bog or Marsh	**FLW**	Fallow
PLO	Ploughed	**SAS**	Set aside	**OTH**	Other
HRT	Horticultural Crops				

3 **GRDNT** Gradient as estimated or measured by a hand held optical clinometer

4 **GLEY/SPL** Depth in centimetres (cm) to gleying and/or slowly permeable layers

5 **AP (WHEAT/POTS)** Crop adjusted available water capacity

6 **MB (WHEAT/POTS)** Moisture Balance (Crop adjusted AP crop adjusted MD)

7 **DRT** Best grade according to soil droughtiness

8 If any of the following factors are considered significant 'Y' will be entered in the relevant column

MREL Microrelief limitation **FLOOD** Flood risk **EROSN** Soil erosion risk

EXP Exposure limitation **FROST** Frost prone **DIST** Disturbed land

CHEM Chemical limitation

9 **LIMIT** The main limitation to land quality The following abbreviations are used

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

Soil Pits and Auger Borings

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

S	Sand	**LS**	Loamy Sand	**SL**	Sandy Loam
SZL	Sandy Silt Loam	**CL**	Clay Loam	**ZCL**	Silty Clay Loam
ZL	Silt Loam	**SCL**	Sandy Clay Loam	**C**	Clay
SC	Sandy Clay	**ZC**	Silty Clay	**OL**	Organic Loam
P	Peat	**SP**	Sandy Peat	**LP**	Loamy Peat
PL	Peaty Loam	**PS**	Peaty Sand	**MZ**	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

F Fine (more than 66% of the sand less than 0 2mm)
M Medium (less than 66% fine sand and less than 33% coarse sand)
C 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 **GLEY** 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

HR	all hard rocks and stones	**SLST**	soft oolitic or dolimitic limestone
CH	chalk	**FSST**	soft, fine grained sandstone
ZR	soft argillaceous or silty rocks	**GH**	gravel with non porous (hard) stones
MSST	soft, medium grained sandston	**GS**	gravel with porous (soft) stones
SI	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 **ST** strongly developed	**MD** moderately developed
ped size	**F** fine **C** coarse	**M** medium **VC** very coarse
ped shape	**S** single grain **GR** granular **SAB** sub angular blocky **PL** platy	**M** massive **AB** angular blocky **PR** prismatic

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 NEW FOREST DLP SITE38/68 Pit Number 1P

Grid Reference SU14061473 Average Annual Rainfall 0 mm
Accumulated Temperature 0 degree days
Field Capacity Level 180 days
Land Use Permanent Grass
Slope and Aspect degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 26	FSZL	10YR32 00	12	26	HR					
26- 60	MCL	10YR42 00	0	75	HR				M	
60- 70	CSL	10YR46 00	0	65	HR				M	

Wetness Grade 1 Wetness Class I
Gleying 000 cm
SPL No SPL

Drought Grade 3B APW 61 mm MBW -46 mm
APP 65 mm MBP -34 mm

FINAL ALC GRADE 3B
MAIN LIMITATION Droughtiness

SOIL PIT DESCRIPTION

Site Name NEW FOREST DLP SITE38/68 Pit Number 2P

Grid Reference SU13901440 Average Annual Rainfall 0 mm
Accumulated Temperature 0 degree days
Field Capacity Level 180 days
Land Use Permanent Grass
Slope and Aspect degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 26	FSZL	10YR32 00	5	14	HR					
26- 43	FSZL	10YR42 33	0	20	HR		WKMSAB	VF	G	
43- 68	CSL	10YR34 00	0	65	HR				M	
68- 90	CS	10YR58 00	0	65	HR		SG	VF	M	

Wetness Grade 1 Wetness Class I
Gleying 000 cm
SPL No SPL

Drought Grade 3A APW 95 mm MBW -12 mm
APP 96 mm MBP -3 mm

FINAL ALC GRADE 3A
MAIN LIMITATION Droughtiness

SAMPLE NO	GRID REF	USE	ASPECT	GRDNT	GLEY	SPL	--WETNESS-- CLASS	GRADE	-WHEAT- AP	MB	-POTS- AP	MB	M REL DRT	FLOOD	EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
1	SU13901455	PGR	NE	02	055	100	1	1	161	54	129	30	1				TS	2	BORDER1
1P	SU14061473	PGR			000		1	1	61	-46	65	-34	3B				DR	3B	
2	SU14001460	PGR	W		015	015	5	4	59	-48	59	-40	3B	Y			WE	4	V WET
2P	SU13901440	PGR			000		1	1	95	-12	96	-3	3A				DR	3A	
3	SU14101460	PGR	W	03	000		1	1	47	-60	47	-52	4				ST	3B	+DR
6	SU13901450	PGR	SE		000		1	1	84	-23	84	-15	3B				DR	3A	SEE 2P
7	SU14001450	PGR	N	02	000		1	1	82	-25	87	-12	3B				DR	3A	SEE 2P
8	SU14101450	PGR	E	01	000		5	4	65	-42	65	-34	3B	Y			WE	4	WET
9	SU14201450	PGR	E	01	000		1	1	83	-24	87	-12	3B				DR	3B	SEE 1P
11	SU13901440	PGR	SE		000		1	1	82	-25	86	-13	3B				DR	3A	SEE 2P
12	SU14001440	PGR	N	02	000		1	1	108	1	113	14	3A				DR	2	IMP 60CM
13	SU14101440	PGR	SE	02	000		1	1	62	-45	62	-37	3B				DR	3B	V STONY
14	SU14251440	PGR	S		000		1	1	65	-42	65	-34	3B				TS	3B	+ DR SEE 1P
15	SU13901430	PGR	SE		000		1	1	91	-16	95	-4	3A				DR	3A	SEE 2P
16	SU14001430	PGR	N		000		1	1	115	8	112	13	2				DR	2	IMP 85CM
17	SU14101430	PGR	E	01	000		1	1	73	-34	73	-26	3B				DR	3B	SEE 1P
19	SU14301430	PGR	S	03	050	078	2	2	129	22	113	14	2				WD	2	SEEPAGE AREA
20	SU14101425	PGR	N		000		1	1	59	-48	59	-40	3B				DR	3B	SEE 1P
21	SU14201418	PGR	S	05	000		1	1	100	-7	106	7	3A				DR	2	IMP 75CM
22	SU14301420	PGR	S	02	058		1	1	101	-6	105	6	3A				DR	2	IMP 78CM
23	SU14201410	BOG	W		000		6	5	0	-107	0	-99	4	Y			WE	5	PERM WATERLOGG
24	SU14301410	PGR			024	024	4	3B	79	-28	81	-18	3B			Y	WE	3B	MADE GD
25	SU14061473	PGR	W		000		1	1	59	-48	59	-40	3B				DR	3B	SEE 1P

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
1	0 30	fszl	10YR42 00						5	0	HR	12							RIDDLED
	30-55	fszl	10YR43 00						0	0	HR	12		M					
	55-100	mcl	10YR44 00	10YR56 00	C			S	0	0		0		M					WET
	100 120	hcl	10YR53 00	75YR56 00	C			Y	0	0		0		P			Y		
1P	0 26	fszl	10YR32 00						12	2	HR	26							WET SIEVED
	26-60	mcl	10YR42 00						0	0	HR	75		M					WET SIEVED
	60-70	csl	10YR46 00						0	0	HR	65		M					WET SIEVED
2	0-15	hzcl	10YR32 00						0	0		0							WATER RECEIVING
	15-30	hzcl	10YR52 61	10YR46 00	C			Y	0	0		0		P			Y		
	30-40	zc	05Y 42 00	10YR68 00	C			Y	0	0		0		P			Y		IMP 40CM
2P	0 26	fszl	10YR32 00						5	0	HR	14							WET SIEVED
	26 43	fszl	10YR42 33						0	0	HR	20	WKMSAB	VF G					WET SIEVED
	43-68	csl	10YR34 00						0	0	HR	65		M					WET SIEVED
	68-90	cs	10YR58 00						0	0	HR	65	SG	VF M					WET SIEVED
3	0-30	fszl	10YR31 00						20	0	HR	30							IMP 30CM
6	0-27	fszl	10YR32 00						4	1	HR	12							RIDDLED
	27-50	mcl	10YR43 00						0	0	HR	15		M					IMP 50CM
7	0 28	mcl	10YR42 00						7	0	HR	15							RIDDLED
	28 60	mcl	10YR43 00						0	0	HR	15		M					IMP 60CM
8	0-27	mzcl	10YR42 00	75YR44 00	C			Y	0	0		0							WATER RECEIVING
	27-38	hzcl	10YR52 00	75YR44 00	C			Y	0	0		0		P					IMP 38CM
9	0-29	fszl	10YR21 00						14	0	HR	20							
	29-58	mcl	10YR32 00						0	0	HR	25		M					IMPS8CM
11	0-30	mcl	10YR32 00						3	0	HR	10							RIDDLED
	30-45	mcl	10YR42 00						0	0	HR	15		M					
	45-60	mcl	10YR42 00						0	0	HR	35		M					IMP 60CM
12	0-28	fszl	10YR42 00						3	0	HR	10							RIDDLED
	28-60	fszl	10YR32 00						0	0	HR	15		M					IMP 60CM
13	0-28	fszl	10YR32 00						12	0	HR	30							RIDDLED
	28-40	fszl	10YR42 00						0	0	HR	30		M					IMP 40CM
14	0-30	fszl	10YR31-00						20	0	HR	25							
	30-40	fsl	10YR32-00						0	0	HR	20		M					IMP 40CM
15	0-25	fszl	10YR32 00						3	0	HR	10							
	25-58	mcl	10YR43 00						0	0	HR	15		M					IMP 58CM

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
16	0-30	mcl	10YR42 00						3	0	HR	5							
	30-85	mcl	10YR43 00						0	0	HR	5		M					IMP 85CM
17	0-30	fszl	10YR32 00						7	0	HR	15							
	30-40	fszl	10YR32 00						0	0	HR	25		M					IMP 40CM
19	0-34	fsl	10YR32 00						0	0	HR	10							
	34-50	fsl	10YR42 00						0	0	HR	5		M					
	50 78	msl	10YR53 54			C		Y	0	0		0		M					
	78-100	hcl	10YR64 54			C		Y	0	0		0		P			Y		
20	0-33	fszl	10YR41 00						12	4	HR	20							RIDDLED IMP33
21	0 28	mzcl	10YR32 00						5	0	HR	7							
	28 58	mcl	10YR42 00						0	0	HR	15		M					
	58 75	mcl	10YR43 00						0	0	HR	25		M					IMP 75CM
22	0 33	mcl	10YR42 00						0	0	HR	10							
	33 58	mcl	10YR32 00						0	0	HR	15		M					
	58-78	mcl	10YR31 53			C		Y	0	0	HR	15		M					
24	0 24	mcl	10YR42 00						10	0	HR	10							
	24 38	c	05GY52 62	75YR46 00	C			Y	0	0	HR	2		P			Y		DISTURBED
	38-53	mzcl	10YR32 00					Y	0	0	HR	5		M			Y		IMP 53-FILL?
25	0-30	fszl	10YR32 00						15	0	HR	25							
	30-38	mcl	10YR42 00						0	0	HR	30		M					IMP 38CM