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KENT MINERALS LOCAL PLAN REVIEW
Land at Barbary Farm Norton Ash Kent

Agricultural Land Classification
ALC Map and Report

September 1998

Resource Planning Team
Eastern Region
FRCA Reading

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AGRICULTURAL LAND CLASSIFICATION REPORT

KENT MINERALS LOCAL PLAN REVIEW
LAND AT BARBARY FARM NORTON ASH KENT

INTRODUCTION

1 This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of 29 7 ha of land at Barbary Farm to the east of Norton Ash in Kent The survey was carried out during September 1998

2 The survey was undertaken by the Farming and Rural Conservation Agency (FRCA)[1] on behalf of the Ministry of Agriculture Fisheries and Food (MAFF) in connection with its statutory input to the Kent Minerals Local Plan Review This survey supersedes any previous ALC information for this land

3 The work was conducted by members of the Resource Planning Team in the Eastern Region of 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 agricultural land use was divided between apple orchards strawberries and stubble following cereal harvest

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

Table 1 Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
1 2	26 6 3 1	89 6 10 4	89 6 10 4
Total surveyed area Total site area	29 7 29 7	100 0	100 0 100 0

[1] FRCA is an executive agency of MAFF and the Welsh Office

7 The fieldwork was conducted at an average density of 1 boring per hectare In total 30 borings and two soil pits were described

8 The agricultural land at this site has been classified in the range Grade 1 (excellent quality) to Grade 2 (very good quality) Where they exist the principal limitations include soil wetness and soil droughtiness

9 The land classified as Grade 1 covers the majority of the site Soils in this area comprise deep medium and heavy silty clay loam textured topsoils and subsoils The soils are stoneless or very slightly stony and given the local climate the reserves of soil available water are sufficient to meet crop needs throughout the growing season in most years As a result this land has no or very minor limitations to agricultural use and is suitable for a very wide range of agricultural or horticultural crops

10 Grade 2 land has been mapped in two areas in the north east and in the south west The soils are also deep but have a higher clay content mostly comprising medium silty clay loam topsoils overlying heavy clay loam and clayey subsoils These soils exhibit signs of slight soil wetness which is sufficient to limit them to Grade 2 They also have a slightly lower available moisture content compared with the land in Grade 1 In the local climate this acts to impart a slight soil droughtiness limitation which may act to lower the level and consistency of crop yields

FACTORS INFLUENCING ALC GRADE

Climate

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

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

13 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

14 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 (AT0 January to June) as a measure of the relative warmth of a locality

15 The combination of rainfall and temperature at this site mean that there is no overall climatic limitation The site is not believed to be either frost prone or to suffer from exposure As such the site may be considered as being climatically Grade 1 However climatic factors do interact with soil properties to influence soil wetness and soil droughtiness At this locality the high moisture deficits present as a result of the local climate may enhance the likelihood of soil droughtiness problems

Table 2 Climatic and altitude data

Factor	Units	Values	
Grid reference	N/A	TQ 979 615	TQ 978 611
Altitude	m AOD	30	40
Accumulated Temperature	day C (Jan June)	1465	1454
Average Annual Rainfall	mm	653	663
Field Capacity Days	days	131	133
Moisture Deficit Wheat	mm	117	116
Moisture Deficit Potatoes	mm	113	111
Overall climatic grade	N/A	Grade 1	Grade 1

Site

16 The survey area lies between approximately 30m and 40m AOD with the land rising gently to the south Nowhere on the site do gradient microrelief or flooding adversely affect agricultural land quality

Geology and soils

17 The most detailed published geological information for this area (BGS 1974) maps the majority of this area to comprise a solid geology of Thanet Beds and Chalk with drift deposits of head brickearth and head

18 The most recent published soils information covering the area (SSEW 1983) shows the site to consist of soils from the Hamble 1 Association These soils are described as Deep well drained often stoneless fine silty soils Some similar soils affected by groundwater and some fine loamy soils with slowly permeable subsoils and slight seasonal waterlogging (SSEW 1983) These soils are similarly described in Soils of Kent (SSEW 1980) and are represented throughout the site

AGRICULTURAL LAND CLASSIFICATION

19 The details of the classification of the survey area are shown on the attached ALC map and the area statistics of each grade are given in Table 1

20 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 II

Grade 1

21 Grade 1 excellent quality land occurs across the greater part of the site This land has no or very minor limitations to agricultural use Profiles comprise non calcareous medium silty clay loam topsoils which overlie similarly textured or slightly heavier (heavy silty clay loam) subsoils Topsoils are stoneless or very slightly stony containing 0 3% total flints (all of which are smaller than 2cm) Subsoils were mostly stone free although occasionally up to 2% flints were observed Although some profiles were observed to be gleyed at moderate depths (50cm+) this slight restriction is insufficient to restrict the land quality and the profiles are assessed as being well drained (Wetness Class I) All the subsoils are moderately structured and permeable and they are typified by soil pit 1 (see Appendix II)

22 The combination of medium silty clay loam topsoil textures and the prevailing climate means that this land has no or very minor restrictions on the flexibility of cropping stocking and cultivations In addition the silt content of the soils means that these profiles have high reserves of soil available water to support a very wide range of agricultural or horticultural crops throughout the growing season in most years Consequently Grade 1 is appropriate

Grade 2

23 Land classified as Grade 2 very good quality has minor soil droughtiness and wetness limitations The profiles are represented by soil pit 2 (see Appendix II) and typically comprise non calcareous medium clay loam and medium silty clay loam topsoils Upper subsoils are of heavy silty clay loam texture and overlie lower subsoils of clay The topsoils are very slightly stony containing about 1% total flints by volume subsoils have a similar or smaller stone content

24 The profiles examined showed evidence of soil wetness Profiles are gleyed below 50cm depth and the clay in the lower subsoil was assessed as being slowly permeable The depth to gleying and the slowly permeable horizon leads to Wetness Class II being applied given the local climatic parameters When combined with the medium silty clay loam textured topsoils Grade 2 is appropriate This slight soil wetness limitation restricts the number of days when either cultivations or grazing should occur without damaging the soil It can also adversely affect crop quality and yield Nevertheless such land is suitable for a wide range of agricultural and horticultural uses

25 The higher clay content of these soils means that the available water content is slightly lower than those classified as Grade 1 and as such this area is classified as Grade 2 on the basis of soil droughtiness This limitation is likely to adversely affect crop growth as water supply may not match demand especially in drier years

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SOURCES OF REFERENCE

British Geological Survey (1974) *Sheet No 273 Faversham 1 50 000 Drift Edition*
BGS London

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 (1980) *Soils of Kent Soil Survey Bulletin No 9*
SSEW Harpenden

Soil Survey of England and Wales (1983) *Sheet 6 Soils of South East England 1 250 000*
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 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	**OTH**	Other
DCW	Deciduous woodland	**BOG**	Bog or marsh	**SAS**	Set Aside
HTH	Heathland	**HRT**	Horticultural crops	**PLO**	Ploughed

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 limitat on	**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	**ST**	Topsoil Stoniness
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
EX	Exposure				

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**	S lty 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	F ne (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 di ided 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	**FSST**	soft fine grained sandstone
ZR	soft argillaceous or silty rocks	**CH**	chalk
MSST	soft medium grained sandstone	**GS**	gravel with porous (soft) stones
SI	soft weathered igneous/metamorphic rock	**GH**	gravel with non porous (hard) stones

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

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

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	TQ976 616	STB					1	1	162	46	126	15	1					1	
2	TQ976 615	STB					1	1	161	45	125	14	1					1	Pit 2
3	TQ977 615	FRT					1	1	161	44	125	12	1				DR	1	
4	TQ978 615	FRT					1	1	161	45	125	14	1					1	
5	TQ979 615	FRT					1	1	161	45	125	14	1					1	
6	TQ980 615	FRT			58	58	2	2	148	32	122	11	1				WE	2	
7	TQ975 614	STU					1	1	151	35	117	6	2				DR	2	
8	TQ976 614	STB					1	1	161	45	125	14	1					1	
9	TQ977 614	FRT					1	1	162	46	126	15	1					1	
10	TQ978 614	FRT					1	1	161	45	125	14	1					1	
11	TQ979 614	FRT					1	1	162	46	126	15	1					1	
12	TQ980 614	FRT			58	58	2	2	148	32	122	11	1				WE	2	PIT 1
13	TQ981 614	FRT					1	1	161	45	125	14	1					1	
14	TQ975 613	STB			30	30	3	3A	131	15	108	-3	2				WE	3A	MZCLTOPSOIL
14A	TQ975 613	STU			50	50	2	2	155	39	117	6	2				WD	2	
15	TQ976 613	STB					1	1	162	46	126	15	1					1	
16	TQ977 613	FRT			70	70	2	2	146	30	125	14	1				WE	2	
17	TQ978 613	FRT					1	1	126	10	125	14	2					1	IMP
18	TQ979 613	FRT					1	1	162	46	126	15	1					1	
19	TQ980 613	FRT			90		1	1	156	40	126	15	1					1	
20	TQ976 612	STB			50		1	1	161	45	125	14	1					1	
21	TQ977 612	STB					1	1	161	45	125	14	1					1	
22	TQ978 612	STB	N	1			1	1	162	46	126	15	1					1	
23	TQ979 612	STB					1	1	162	46	126	15	1					1	
24	TQ980 612	FRT					1	1	161	45	125	14	1					1	
25	TQ975 611	FRT			000		2	2	160	44	124	13	1				WE	2	POACHED
26	TQ976 611	FRT					1	1	162	46	126	15	1					1	
27	TQ977 611	STB					1	1	161	45	125	14	1					1	
28	TQ978 611	STB	N	2			1	1	161	45	125	14	1					1	
29	TQ979 611	STB	N	1	0		2	2	161	45	125	14	1				WE	2	
1P	TQ976 615	STU					1	1	160	44	124	13	1					1	P100AUG120
2P	TQ980 615	FRT			53	61	2	2	141	25	119	8	2				WD	2	P80AUG120

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	ABUN	CONT	PED COL	GLEY	STONES 2	6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
1	0 36	MZCL	10YR42						0	0		0						
	36 120	MZCL	10YR54						0	0		0		M				
2	0 32	MZCL	10YR42						0	0		0						
	32 50	MZCL	10YR44						0	0		0		M				
	50 120	HZCL	10YR54						0	0		0		M				
3	0 30	MZCL	10YR43	10YR56	F	D		N	0	0		0						
	30 48	MZCL	10YR46						0	0		0		M				
	48 120	HZCL	10YR54						0	0		0		M				
4	0 30	MZCL	10YR42						0	0		0						
	30 70	MZCL	10YR53						0	0		0		M				
	70 120	MZCL	10YR63						0	0		0		M				
5	0 30	MZCL	10YR42						0	0		0						
	30 70	MZCL	10YR53						0	0		0		M				
	70 120	MZCL	10YR54						0	0		0		M				
6	0 25	MZCL	10YR42						0	0		0						
	25 58	HZCL	10YR54						0	0		0		M				
	58 120	ZC	10YR53	10YR56	C	D		Y	0	0		0		M				
7	0 30	MCL	10YR42						0	0	HR	1						
	30 70	C	10YR56						0	0		0		M				
	70 120	HZCL	10YR54						0	0		0		M				
8	0 28	MZCL	10YR42						0	0		0						
	28 120	MZCL	10YR54						0	0		0		M				
9	0 36	MZCL	10YR42						0	0		0						
	36 120	MZCL	10YR54						0	0		0		M				
10	0 30	MZCL	10YR42						0	0		0						
	30 55	MZCL	10YR54						0	0		0		M				
	55 120	HZCL	10YR64						0	0		0		M				
11	0 35	MZCL	10YR43						0	0		0						
	35 120	MZCL	10YR54						0	0		0		M				
12	0 26	MZCL	10YR42						0	0		0						
	26 58	HZCL	10YR54						0	0		0		M				
	58 120	ZC	10YR63	10YR68	C	D		Y	0	0		0		M				Y
13	0 30	MZCL	10YR42						0	0		0						
	30 58	MZCL	10YR53						0	0		0		M				
	58 120	MZCL	10YR64						0	0		0		M				

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	ABUN	CONT	PED COL	GLEY	STONES---- 2	6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
14	0 30	HZCL	10YR42						0	0	HR	1						
	30 52	C	10YR53	10YR56	M			Y	0	0		0		P			Y	
	52 120	C	25Y 53	10YR56	M			Y	0	0		0		P			Y	
14A	0 38	MZCL	10YR42						0	0	HR	1						
	38 50	C	10YR44	10YR56	C			S	0	0		0		M				
	50 70	C	10YR53	10YR56	C			Y	0	0		0		P			Y	
	70 120	HZCL	10YR64	10YR56	C			S	0	0		0		M				
15	0 34	MZCL	10YR42						0	0		0						
	34 120	MZCL	10YR54						0	0		0		M				
16	0 30	MZCL	10YR42						0	0		0						
	30 55	MZCL	10YR54						0	0		0		M				
	55 70	HZCL	10YR54						0	0		0		M				
	70 120	C	10YR53	10YR56	C			Y	0	0		0		P			Y	
17	0 30	MZCL	10YR43						0	0		0						
	30 85	MZCL	10YR54						0	0		0		M				
18	0 35	MZCL	10YR43						0	0		0						
	35 120	HZCL	10YR54						0	0		0		M				
19	0 36	MZCL	10YR42						0	0		0						
	36 90	MZCL	1						0	0		0		M				
	90 120	ZC	25Y64	10YR66	C	F		Y	0	0		0		M				
20	0 32	MZCL	10YR42						0	0		0						
	32 50	MZCL	10YR53						0	0		0		M				
	50 120	HZCL	10YR63	10YR56	C	F		Y	0	0		0		M				
21	0 30	MZCL	10YR42						0	0		0						
	30 50	MZCL	10YR54						0	0		0		M				
	50 120	HZCL	10YR64						0	0		0		M				
22	0 35	MZCL	10YR42						0	0		0						
	35 70	MZCL	10YR54						0	0		0		M				
	70 120	HZCL	10YR64						0	0		0		M				
23	0 35	MZCL	10YR42						0	0		0						
	35 120	HZCL	10YR54						0	0		0		M				
24	0 30	MZCL	10YR53						0	0		0						
	30 120	MZCL	10YR54						0	0		0		M				
25	0 26	MZCL	10YR42	10YR46	C	D		Y	0	0		0						
	26 80	MZCL	10YR53						0	0		0		M				
	80 120	MZCL	10YR54						0	0		0		M				

				MOTTLES			PED		--STONES			STRUCT/	SUBS				
SAMPLE	DEPTH	TEXTURE	COLOUR	COL	ABUN	CONT	COL	GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC
26	0 36	MZCL	10YR43						0	0		0						
	36 78	HZCL	10YR54						0	0		0		M				
	78 120	MZCL	10YR64						0	0		0		M				
27	0 29	MZCL	10YR43						0	0		0						
	29 45	MZCL	10YR54						0	0		0		M				
	45 85	HZCL	10YR54						0	0		0		M				
	85 120	HZCL	10YR54	10YR56	C	D		N	0	0		0		M				
28	0-28	MZCL	10YR43						0	0		0						
	28 60	MZCL	10YR53	10YR56	C	F		Y	0	0		0		M				
	60 120	MZCL	10YR44						0	0		0		M				
29	0 30	MZCL	10YR42	10YR56	C	D		Y	0	0		0						
	30 70	MZCL	75YR53						0	0		0		M				
	70 120	HZCL	10YR53	10YR56	M	D		Y	0	0		0		M				
1P	0-25	MZCL	10YR42						0	0	HR	1	MCSAB	FR				
	25 56	HZCL	10YR44						0	0		0	MCAB	FM	M			
	56 120	HZCL	10YR54						0	0		0	MMPR	FM	M			
2P	0 25	MZCL	10YR42						0	0	HR	1	MCSAB	FR				
	25 53	HZCL	10YR53						0	0	HR	1	MCAB	FM	M			
	53 61	HZCL	10YR53	10YR56	C	D		Y	0	0	HR	1		M			N	
	61 120	C	10YR53	10YR68	M		10YR52	Y	0	0		0	SCAB	VF	P	Y	Y	N