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Ospringe Brickworks, Faversham, Kent
Statement of Physical Characteristics
Map and Report
December 1994

STATEMENT OF PHYSICAL CHARACTERISTICS

LAND NEAR OSPRINGE BRICKWORKS, FAVERSHAM, KENT

1 Summary

1 1 ADAS was commissioned by MAFF s Land Use Planning Unit to determine land quality and site physical characteristics for an area of land to the west of Ospringe Brickworks near Faversham in Kent The work forms part of MAFF s statutory response to a proposal for brickearth extraction and restoration under the 1981 Minerals Act

1 2 The site comprises 4 3 hectares of land to the west of Faversham in Kent An Agricultural Land Classification (ALC) survey was carried out in October 1994 The survey was undertaken at a detailed level with an observation density of approximately one per hectare A total of 6 borings and two soil inspection pits were assessed 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 long term limitations on its use for agriculture

1 3 The work was carried out by members of the Resource Planning Team in the Guildford Statutory Group of ADAS

1 4 At the time of survey the site was under winter oil seed rape for 1995 harvest

1 5 The distribution of grades and subgrades is shown on the attached ALC map and the areas 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 This map supersedes any previous ALC survey information for this site

Table 1 Distribution of Grades and Subgrades

Grade	Area (ha)	% of Site
2	2 9	67 4
3a	0 8	18 6
3b	0 6	14 0
Total area of Site	4 3ha	100%

1 6 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 7 The majority of the site has been classified as very good quality (Grade 2) and good quality (Subgrade 3a) with a small area of moderate quality (Subgrade 3b) Principal limitations include soil droughtiness and slope The majority of the site is affected by soil droughtiness to varying degrees Land mapped as Grade 2

comprises soils which are commonly deep well drained virtually stoneless and of a fine silty nature However due to the local climate water reserves are such that there is a slight risk of drought which may adversely affect plant growth and yield The area of Subgrade 3a (good quality land) has fine loamy over clayey soils which contain variable amounts of flint in both the topsoil and subsoil The stones restrict plant water availability to the degree that there is an increased risk of drought stress affecting plant growth and yield The area of moderate quality (Subgrade 3b) land is principally limited by slope gradient In this area gradients of 8° were measured which limit the land to this grade as cultivation is compromised in terms of the safe and efficient use of farm machinery

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 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

2 4 No local climatic factors such as exposure or frost risk are believed to affect the site However climatic and soil factors interact to influence soil wetness and droughtiness limitations

Table 2 Climatic Interpolation

Grid Reference	TQ995613	TQ996612
Altitude (m AOD)	25	30
Accumulated Temperature (°days Jan -June)	1470	1465
Average Annual Rainfall (mm)	658	663
Field Capacity Days	133	134
Moisture deficit wheat (mm)	120	119
Moisture deficit potatoes (mm)	116	115
Overall Climatic Grade	1	1

3 Relief

3 1 The site lies between approximately 20 and 30m AOD From the west the land rises sharply to a summit towards the centre of the site and then falls gently to the eastern boundary Gradient is sufficient to restrict land quality to Subgrade 3b in the west of the site where gradients of 8° were measured using an optical reading clinometer

4 Geology and Soils

4 1 The published geological information (BGS 1974) shows the majority of the site to be underlain with Pleistocene head brickearth as a drift deposit overlying Cretaceous Upper Chalk A small area of the site towards the south west is shown as being underlain by Eocene Thanet Beds This approximates to the area of stonier clayey soils

4 2 The published soils information (SSEW 1980 1983 and 1984) shows the site to be underlain by soils of the Hamble 1 Association These 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 some shallow soils over chalk A slight risk of water erosion (SSEW 1983) This detailed survey work confirmed the presence of fine silty soils although stony fine loamy soils occurred on the highest land Some water erosion was evident on the steepest slopes to the west (i e Subgrade 3b land)

5 Agricultural Land Classification

5 1 Paragraph 1 5 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 Land of very good quality is mapped for the majority of the land at this site The principal limitation is soil droughtiness Typically profiles are deep and comprise a stoneless or very slightly stony (up to c 5% v/v flints) non calcareous medium silty clay loam or silt loam topsoil This passes to a stoneless or very slightly stony (up to c 2% v/v flints) medium silty clay loam upper subsoil This overlies a stoneless heavy silty clay loam lower subsoil exhibiting occasional signs of slight wetness in the form of a few ochreous mottles Due to the prevailing local climatic regime which is dry in a national context soils of this nature although relatively moisture retentive are not sufficient to provide adequate reserves of soil water for plant growth in all years therefore there is a slight risk of drought stress affecting plant growth and yield The pit observation 1p (see Appendix III) is representative of this area

Subgrade 3a

5 4 Land of good quality is mapped over 18 6% of the site and is located towards the south west on higher ground The principal limitation is soil droughtiness caused by stony lower horizons Land in this area is typified by the pit observation 2p (see Appendix III) comprising a slightly stony (c 5% v/v flints 2%>2cm) non calcareous medium clay loam topsoil passing to a similarly stony slightly gleyed clay upper subsoil This overlies a very stony (c 42% v/v flints) slightly gleyed

clay lower subsoil horizon which became impenetrable at 65cm The stones in the profile are sufficient to reduce water availability such that given the local climate data there is a risk of drought stress occurring affecting plant growth and yield

Subgrade 3b

5 5 Land of moderate quality is mapped towards the west of the site The principal limitation is gradient which was measured with an optical reading clinometer, at approximately 8° Slopes of this gradient are sufficient to compromise the safe and efficient operation of some farm machinery to the extent that Subgrade 3b is appropriate due to limitations in the flexibility of cropping

6 Soil resources

Soil Units Consideration for Restoration

6 1 The following section and the accompanying soil resource maps describe the pattern of topsoil and subsoil resources on the site It should be emphasised that the maps are not soil stripping maps but are an illustration of the soil resources available for restoration on the site When considering these details it is important to remember that soils were sampled to a maximum depth of 120cm during survey work In some cases soil resources will extend below this depth

6 2 Topsoils

One topsoil unit was identified It comprises an average 30cm (range 25 - 33cm) dark greyish brown or brown (10YR4/2 and/or 10YR4/3) medium silty clay loam occasionally medium clay loam or silt loam These topsoils were found to be non calcareous and very slightly stony (c 2-5% v/v flints)

These topsoils are moderately structured having weakly and moderately developed coarse sub angular blocky peds of friable consistence They are porous and very well rooted

6 3 Subsoils

Two subsoil units were identified

Unit 1 This unit is relatively uniform and comprises an average 90cm (range 87 - 95cm) of medium silty clay loam passing to heavy silty clay loam in the lower subsoil The dark yellowish brown yellowish brown and light yellowish brown (10YR4/4 10YR5/4 10YR5/6 and/or 10YR6/4) medium silty clay loam upper subsoil horizons extend to between 59 and 75 cm are non-calcareous and stoneless or very slightly stony (up to 2% v/v flints occasionally with some chalk fragments in addition (c 2% v/v)) Occasionally a few manganese concentrations were observed The brown pale brown yellowish brown light yellowish brown occasionally light brownish grey (10YR5/3 10YR5/4 10YR5/6 10YR6/2 10YR6/3 and 10YR6/4) heavy silty clay loam lower subsoil horizon extends from between 59 and 75cm to 120cm These are commonly stoneless or very slightly

stony (max 2% v/v flints) and non calcareous A few distinct yellowish brown (10YR5/6) ochreous mottles were observed in this horizon along with a few manganese concentrations The ped faces were found to be of yellowish brown (10YR5/4) colour These factors show a very slight drainage imperfection due to groundwater as the soils are permeable and well rooted

This subsoil unit has moderately good structures throughout comprising moderately well developed coarse sub angular blocky peds of friable consistence to between 59 and 75cm Below this depth moderately well developed coarse sub-angular blocky peds of firm consistence occur in the heavy silty clay loam lower subsoil horizons Pit 1 described at Appendix III is typical of this subsoil unit

Unit 2 This subsoil unit is localised in extent the majority of it corresponding with the area assigned to Subgrade 3a towards the south west of the site where soils are heavier and stonier than elsewhere on the site The unit comprises an average 90cm (range 87 95cm) of very slightly stony (c 5% v/v flints to c 60cm) but becoming very stony with depth (42% v/v flints (measured with 2mm sieve)) yellowish brown (10YR5/4) non calcareous clay assumed to 120cm Common ochreous (10YR5/6) mottles and manganese concentrations were observed in the profile showing a slight degree of wetness The soils were well rooted to 60 65cm it being difficult to dig below this depth to record root penetration

The very slightly stony upper layers of this soil unit (to c 60cm) have a moderately good structure comprising moderately well developed coarse sub angular blocky peds of friable consistence Below this depth the lower subsoil became very stony such that it was impossible to ascertain the structural condition due to the high stone content and impenetrable nature of this horizon Pit 2 described at Appendix III is typical of this subsoil unit

6 4 Table 3 Soil Resources

	Topsoil	Subsoil		Total Soil
Unit	1	1	2	Resource
Average Depth (cm)	30 0	90 0	90 0	
Area (ha)	4 3	3 4	0 9	
Volume (m^3)	12 900	30 600	8 100	51 600

SOURCES OF REFERENCE

British Geological Survey (1974) Sheet 273 Faversham 1 50 000 Solid & Drift Edition

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

Meteorological Office (1989) Climatic datasets for Agricultural Land Classification

Soil Survey of England and Wales (1980) Soils of Kent Bulletin No 15 Map scale 1 250 000

Soil Survey of England and Wales (1983) Sheet No 6 Soils of South East England 1 250 000 and Accompanying Legend

Soil Survey of England and Wales (1984) Soils and their use in South East England Bulletin No 15

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 (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

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 (e g 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 e g 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

DEFINITION OF SOIL WETNESS CLASS

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 180 days but only wet within 40 cm depth for 31-90 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 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

Wetness Class IV

The soil profile is wet within 70 cm depth for more than 180 days but not wet within 40 cm depth fro 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

Wetness Class V

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

Wetness Class VI

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

APPENDIX III

SOIL PIT AND SOIL BORING DESCRIPTIONS

Contents

SOIL PROFILE DESCRIPTIONS EXPLANATORY NOTE

Soil pit and auger boring information collected during ALC fieldwork is held on a database This has commonly used notations and abbreviations as set out below

Boring Header Information

1 **GRID REF** national 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 measured by a hand held optical clinometer

4 **GLEY/SPL** Depth in cm to gleying or slowly permeable layers

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

6 **MB (WHEAT/POTS)** Moisture Balance

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

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

MREL Microrelief limitation	**FLOOD** Flood risk	**EROSN** Soil erosion risk
EXP Exposure limitation	**FROST** Frost	**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 **ST** Topsoil Stones
CH Chemical	**WE** Wetness	**WK** Workability
DR Drought	**ER** Erosion Risk	**WD** Soil Wetness/Droughtiness

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	**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 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

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

6 **STONE LITH** 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 sandstone	**GH** gravel with non porous (hard) stones
SI soft weathered igneous/metamorphic rock	

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

7 **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

8 **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

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

10 **POR** Soil porosity If a soil horizon has less than 0 5% biopores >0 5 mm a 'Y' will appear in this column

11 **IMP** If the profile is impenetrable a Y will appear in this column at the appropriate horizon

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

13 **CALC** If the soil horizon is calcareous a Y will appear in this column

14 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 OSPRINGE BRICKWORKS Pit Number 1P

Grid Reference TQ99656126 Average Annual Rainfall 663 mm
Accumulated Temperature 1465 degree days
Field Capacity Level 134 days
Land Use Oilseed Rape
Slope and Aspect 01 degrees N

HORIZON	TEXTURE	COLOUR	STONES >2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0 28	MZCL	10YR42 00	0	3	HR		MDCSAB	FR		
28- 59	MZCL	10YR44 54	0	2	HR	F	MDCSAB	FR	M	
59 120	HZCL	10YR54 53	0	0		F	MDCSAB	FM	M	

Wetness Grade 1 Wetness Class I
Gleying cm
SPL cm

Drought Grade 2 APW 158mm MBW 39 mm
APP 122mm MBP 7 mm

FINAL ALC GRADE 2
MAIN LIMITATION Droughtiness

SOIL PIT DESCRIPTION

Site Name OSPRINGE BRICKWORKS Pit Number 2P

Grid Reference TQ99526124

Average Annual Rainfall 663 mm
Accumulated Temperature 1465 degree days
Field Capacity Level 134 days
Land Use Oilseed Rape
Slope and Aspect 04 degrees NW

HORIZON	TEXTURE	COLOUR	STONES >2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 32	MCL	10YR42 00	2	5	HR		WKCSAB	VF		
32- 58	C	10YR54 00	0	5	HR	C	MDCSAB	FR	M	
58 65	C	10YR54 00	0	42	HR	C		FR	M	

Wetness Grade 1

Wetness Class I
Gleying cm
SPL cm

Drought Grade 3B

APW 92 mm MBW -27 mm
APP 103mm MBP -12 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	TQ99506138	OSR	NW	08			1	1	134	15	123	8	2				DR	2	IMP FLINTS 95
1P	TQ99656126	OSR	N	01			1	1	158	39	122	7	2				DR	2	PIT 75 AUG 120
2	TQ99506130	OSR	NW	06			1	1	157	38	121	6	2				DR	2	
2P	TQ99526124	OSR	NW	04			1	1	92	-27	103	-12	3B				DR	3A	IMP 65 3AT0120
3	TQ99606130	OSR	W	02			1	1	160	41	124	9	2				DR	2	
4	TQ99506123	OSR	NW	04			1	1	91	-28	101	-14	3B				DR	3A	IMP 65 3AT0120
5	TQ99606120	OSR	E	01			1	1	160	41	124	9	2				DR	2	
6	TQ99706120	OSR	E	01			1	1	173	54	137	22	1					1	ZL TOPSOIL

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	0-30	mzcl	10YR42 00						0	0	HR	3							
	30-55	mzcl	10YR56 00						0	0		0		M					
	55-70	mzcl	10YR54 64 00MN00 00			F			0	0		0		M					
	70-95	hzcl	10YR54 64 00MN00 00			F			0	0	HR	2		M					IMP 95 FLINT
1P	0-28	mzcl	10YR42 00						0	0	HR	3	MDCSAB	FR					
	28 59	mzcl	10YR44 54 10YR56 00			F	10YR54 00		0	0	HR	2	MDCSAB	FR	M				+3% CHALK FRAGS
	59-120	hzcl	10YR54 53 10YR56 00			F	10YR54 00		0	0		0	MDCSAB	FM	M				
2	0 25	mzcl	10YR42 43						0	0	HR	5							
	25 50	mzcl	10YR54 00						0	0	CH	3		M					
	50-70	mzcl	10YR56 00						0	0		0		M					
	70-120	hzcl	10YR54 64 00MN00 00			F			0	0		0		M					
2P	0-32	mcl	10YR42 00						2	0	HR	5	WKCSAB	VF					MB-120=119/106 = 3A
	32-58	c	10YR54 00 10YR56 00			C	10YR54 00	S	0	0	HR	5	MDCSAB	FR	M				SL GLEY 32
	58-65	c	10YR54 00 10YR56 00			C		S	0	0	HR	42		FR	M				STONES SIEVED IMP65
3	0-30	mzcl	10YR42 00						0	0	HR	2							
	30-60	mzcl	10YR54 56						0	0		0		M					
	60-85	hzcl	10YR56 00 00MN00 00			F			0	0		0		M					
	85-120	hzcl	10YR63 64 10YR56 00			F			0	0	HR	1		M					BORDER MZCL
4	0-30	mcl	10YR42 00						2	0	HR	5							
	30-60	c	10YR54 56 00MN00 00			F			0	0	HR	10		M					
	60-65	c	10YR54 56						0	0	HR	35		M					IMP FLINTS 65
5	0-30	mzcl	10YR42 00						0	0	HR	2							
	30-60	mzcl	10YR54 00 00MN00 00			F			0	0		0		M					
	60-120	hzcl	10YR54 53 10YR56 00			F			0	0		0		M					
6	0-33	zl	10YR42 00						0	0	HR	2							
	33-75	mzcl	10YR54 00 00MN00 00			F			0	0		0		M					
	75-100	hzcl	10YR54 53 00MN00 00			F			0	0		0		M					
	100-120	hzcl	10YR63 62 10YR56 00			F			0	0		0		M					