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**BERKSHIRE MINERALS PLAN
(OMISSION SITES)**

**SITE OS 3 - FROUDS FARM/FROUDS LANE,
ALDERMASTON
ALC MAP AND REPORT
JULY 1993**

AGRICULTURAL LAND CLASSIFICATION

BERKSHIRE MINERALS PLAN - (OMISSION SITES)

SITE OS 3 - FROUDS FARM/FROUDS LANE, ALDERMASTON

1.0 INTRODUCTION

- 1.1 An Agricultural Land Classification (ALC) survey was carried out over 40.8 ha of land on either side of Frouds Lane, Aldermaston during July 1993. The site, which lies approximately 1.5 km to the east of Woolhampton, comprises six separate blocks of land, three on either side of Frouds Lane, and further separated by the Kennet and Avon Canal and a railway line. The area of land on the south west side adjacent to Frouds Farm Nursery is the subject of a current planning application for a marina.
- 1.2 All the land is in agricultural use with the exception of three areas of woodland, two to the east and the other on the extreme western boundary. The two fields to the north of the railway are in grass, whilst between the railway and canal, the field to the west is under linseed and to the east under grass. These fields are currently up for auction. On the southern side of the canal, the land to the west is all under grass, which was cut for hay, whilst to the east there are two fields used for grazing horses and to the south east of the drain an area of barley.
- 1.3 A total of 29 observations were made using a dutch auger to a depth of 1.2 m unless stopped by impenetrable material. In addition a soil pit was dug in the area which is the subject of the marina planning application to help assess subsoil conditions in greater detail. The land has been graded in accordance with MAFF's revised guidelines and criteria for grading the quality of agricultural land (MAFF, 1988).

2.0 PHYSICAL FACTORS AFFECTING LAND QUALITY

Climate

- 2.1 Climatic information for the area has been interpolated from the 5 km dataset produced by the Meteorological Office (Met. Office, 1989) and is set out in the table below:

Grid Reference	SU 590 670
Altitude (m, AOD)	60
Accumulated Temperature (deg)	1460
Average annual rainfall (mm)	694
Field capacity days	148
Moisture deficit, wheat (mm)	110
Moisture deficit, potatoes (mm)	104

- 2.2 Although the average annual rainfall is relatively low in a national context, there is no overall climatic limitation affecting the land quality of the site. However, climatic factors do affect interactive limitations between soil and climate, namely soil wetness and droughtiness.

Relief

- 2.3 The site is relatively flat with a very slight overall gradient toward the River Kennet to the south and west of the site. The land lies at an altitude of approximately 60 m AOD and consequently neither altitude nor gradient constitute any limitation to the agricultural land quality.

Geology and Soils

- 2.4 The area has been mapped by the British Geological Survey as predominantly River Valley Gravel, with an area of Alluvium toward the south east of the site (Geol. Surv., 1946).
- 2.5 The Soil Survey of England and Wales Sheet 6, Soils of South East England (1983) shows the site to comprise soils of the Hamble 2 Association to the north and west of the site. These are described as deep stoneless silty soils derived from aeolian silty drift overlying river terrace sands and gravels. On the east of the site is an area of Sonning Association, coarse textured well drained soils developed in river terrace drift, whilst to the south east on the alluvium, Thames Association soils have been mapped which comprise calcareous clayey soils in river alluvium.
- 2.6 The current survey broadly confirms the presence of these soil types. At the southern end of the site adjacent to the Basingstoke Road is a small area of heavy textured fine loamy over clayey alluvial soils. These soils have a calcareous heavy silty clay loam topsoil over a strongly mottled heavy silty clay loam upper subsoil. Below 60 cm depth, the soil has a clay texture and is very moist, soft and plastic and the underlying gravel strata was encountered at 80 cm. These soils are assessed as wetness class IV.
- 2.7 To the north of the alluvium, on the eastern half of the site, shallow gravelly soils which correlate with the Sonning Association were found. These soils have a medium clay loam topsoil which is generally slightly gravelly (5-10% small and medium flints) over a medium/heavy clay loam or occasionally sandy clay loam subsoil. This subsoil horizon was generally stonier and shallower toward the south of the site, becoming impenetrable at 30-45 cm depth in this area, but at 45-60 cm further to the north. Similar soils were also found on either side of the railway line at the north west of the site and also between the railway and canal to the east of Frouds Lane.
- 2.8 On either side of the canal on the western half of the site the soils are predominantly fine loamy with some slightly silty profiles between the railway and canal. These soils typically have a medium clay loam topsoil over a medium or heavy clay loam subsoil which then becomes sandier with depth before the underlying gravelly material is encountered below 70-90 cm. They generally exhibit some ochreous mottling due to a fluctuating groundwater table in the underlying gravels and have been assessed as wetness class II.
- 2.9 At the northern end of the site, deep free draining soils were encountered. These soils have a silty loam or fine sandy loam topsoil over a medium silty clay loam or medium clay loam subsoil which becomes heavier with depth. They are stoneless throughout

and show no evidence of waterlogging and have therefore been assessed as wetness class I.

3.0 AGRICULTURAL LAND CLASSIFICATION

3.1 The site has been classified in accordance with the guidelines and criteria for grading agricultural land (MAFF, 1988). The following table gives a breakdown of the individual grades in term of area and extent for the site and their distribution is shown on the accompanying map.

<u>Grade</u>	<u>Area (ha)</u>	<u>% of total agricultural land</u>
1	7.4	20.9
2	12.0	33.9
3a	9.7	27.4
3b	6.3	<u>17.8</u>
Woodland	1.4	<u>100</u>
Non-Ag.	<u>4.0</u>	
Total area of site	<u>40.8</u>	

Grade 1

3.2 The deep free draining soils at the northern end of the site described in paragraph 2.9 above have been classified as Grade 1. These soils contain large amounts of plant available water for both reference crops (wheat and potatoes) and therefore should not cause drought stress. In addition the free draining nature of the soils together with the coarse silty/loamy topsoils will not result in any wetness or workability restrictions in the wetter periods of the year. These soils are therefore highly versatile and could potentially support a wide range of crops.

Grade 2

3.3 The Grade 2 land has been mapped on either side of the Kennet and Avon Canal on the western side of the site. The area comprises predominantly fine loamy soils which are described in paragraph 2.8 above. These soils have been classified as wetness class II and under the existing climatic regime have a minor workability restriction during the wetter periods of the year. Furthermore this land will also exhibit a minor droughtiness restriction especially for wheat due to the limitation of potential rooting depth by the underlying gravel layers. Despite these minor restrictions this area is still potentially capable of growing a wide range of agricultural crops.

Grade 3a

3.4 The deeper fine loamy soils developed on the river terrace gravels described in paragraph 2.7 have been mapped as Grade 3a. These soils will have a moderately severe droughtiness restriction, due to the presence of the underlying gravelly strata at a moderately shallow depth, which will restrict the plant available water resulting in drought stress in most years.

Grade 3b

- 3.5 The Grade 3b land has been mapped at the south east of the site adjacent to the Basingstoke Road. This area comprises the alluvial soils described in paragraph 2.6 and also the shallower more gravelly terrace soils described in paragraph 2.7. In the case of the alluvial soils, the major restriction is due to wetness. These soils have been classified as wetness class IV and due to the heavy silty clay loam topsoil texture, have a major wetness and workability restriction during the wetter periods of the year limiting them to this grade.
- 3.6 The shallow stony soils described in paragraph 2.7 are limited to this grade due to a severe droughtiness restriction. The high stone content in the subsoil and the shallow depth to the underlying gravel strata mean that these soils will have a low available water capacity and will therefore be very droughty for both reference crops.

July 1993
ADAS Ref: 0202/129/93
MAFF Ref: EL 02/00430

Resource Planning Team
Guildford Statutory Group
ADAS Reading

APPENDIX I

DESCRIPTION OF THE GRADES AND SUB-GRADES

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 on the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

Grade 3 : Good To Moderate Quality Agricultural Land

Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. When more demanding crops are grown yields are generally lower or more variable than on land in grades 1 and 2.

Sub-grade 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.

Sub-grade 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 very 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 : 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/airfields. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

Woodland

Includes commercial and non-commercial 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.

REFERENCES

BRITISH GEOLOGICAL SURVEY (1946) Sheet 268, Reading.

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 ENGLAND AND WALES (1983) Sheet No 6. Soils of South East England.

SOIL SURVEY OF ENGLAND AND WALES (1984) Soils and their use in South East England.

APPENDIX III

DEFINITION OF SOIL WETNESS CLASSES

Wetness Class I

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

Wetness Class II

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

Wetness Class III

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

Wetness Class IV

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

Wetness Class V

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

Wetness Class VI

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

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

APPENDIX IV

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 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 HRT : Horticultural Crops PGR : Permanent Pasture LEY : Ley Grass RGR : Rough Grazing
SCR : Scrub CFW : Coniferous Woodland DCW : Deciduous Woodland HTH : Heathland BOG : Bog or Marsh
FLW : Fallow PLO : Ploughed SAS : Set aside OTH : Other

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 CH : Chemical WE : Wetness WK : Workability
DR : Drought ER : Soil Erosion Risk WD : Combined 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
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 MSST : soft, medium or coarse grained sandstone
SI : soft weathered igneous or metamorphic SLST : soft oolitic or dolimitic limestone
FSST : soft, fine grained sandstone ZR : soft, argillaceous, or silty rocks CH : chalk
GH : gravel with non-porous (hard) stones GS : gravel with porous (soft) stones

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 : FROUDS FM, OS 3 BERKS MP Pit Number : 1P

Grid Reference: SU590 665 Average Annual Rainfall : 694 mm
Accumulated Temperature : 1460 degree days
Field Capacity Level : 148 days
Land Use : Permanent Grass
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 27	MCL	10YR43 00	0	3		
27- 60	HCL	10YR54 00	0	1		MCP
60- 83	HCL	10YR53 00	0	2	C	MCSAB
83-120	C	75YR55 00	0	40		

Wetness Grade : 2 Wetness Class : II
Gleying : 060 cm
SPL : No SPL

Drought Grade : 2 APW : 132mm MBW : 22 mm
APP : 115mm MBP : 12 mm

FINAL ALC GRADE : 2
MAIN LIMITATION : Droughtiness

L	ASPECT			--WETNESS--		-WHEAT-		-POTS-		M.REL		EROSN		FROST		CHEM		ALC		COMMENTS
	GRID	REF	USE	GRDNT	GLEYSPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	LIMIT				
590	665	PGR		060		2	2	132	22	115	12	2						DR	2	IMP83CM

PLE	DEPTH	TEXTURE	COLOUR	-----MOTTLES-----		PED	-----STONES-----			STRUCT/	SUBS								
				COL	ABUN		CONT	COL.	GLE			>2	>6	LITH	TOT	CONSIST	STR	POR	IMP
	0-27	mc1	10YR43 00					0	0	HR	3								
	27-60	hc1	10YR54 00					0	0	HR	1	MCP	FR	M					
	60-83	hc1	10YR53 00	75YR56	00	C		Y	0	0	HR	2	MCSAB	FR	M				
	83-120	c	75YR55 00					Y	0	0	HR	40		FM	P				

SITE OS3

Auger Bores

- 1 0-33 7.5YR4/3 ZL <1% flints non calc
33-65 7.5YR4/4 mZCL no mottles
65-120 7.5YR5/5 m/hZCL becoming paler with depth
Wetness Class I Grade 1
- 2 0-30 10YR4/3 ZL 1-2% flints non calc
30-50 7.5YR5/5 mZCL no mottles
50-75 7.5YR5/5 h(z)CL few faint och mottles at base
75-120 7.5YR6/4 hCL com dist och mottles
Wetness Class I/II Grade 1
- 4 0-28 10YR4/4 fSL non calc 1-2% flints
28-55 7.5YR5/5 mCL no stones no mottles
55-100 7.5YR5/6 hCL no stones
100-120 7.5YR6/5 fSCL no stones
Wetness Class I Grade 1
- 5 0-30 10YR4/3 fSL 1-2% flints
30-80 10YR5/4 mCL
80-120 7.5YR6/4 fSZL/mCL few mottles below 105 cm
Wetness Class I Grade 1
- 8 0-30 10YR4/3 fSL 1-2% flints non calc
30-60 7.5YR5/5 m(z)CL no mottles
60-110 7.5YR5/5 h(z)CL few faint och mottles below 90 cm
Wetness Class I Grade 1
- 9 0-27 10YR4/4 fSL 5% small & med flints non calc
27-60 10YR4/6 mCL 5-7% flints
Impenetrable flints @ 60 cm
Wetness Class I Grade 3a
- 10 0-27 10YR3/4 mCL non calc 8-10% small & med flints
27-50 10YR5/4 mCL sl stony as above
Impenetrable flints @ 50 cm
Wetness Class I? Grade 3a
- 11 0-30 10YR4/3 (s)CL 3-4% flints
30-65 10YR5/5 hCL 5% flints
65-85 10YR5/4 SCL sl stony
Wetness Class I Grade 2
- 12 0-30 10YR4/4 mCL 5-7% flints non calc
30-55 10YR5/4 mCL(s) 10% flints hard & dry
Impenetrable flints @ 55 cm
Wetness Class I? Grade 3a

- 14 0-30 10YR4/3 vfSL/ZL non calc < 1% flints
 30-40 7.5YR5/4 mZCL no mottles no stones
 40-70 10YR5/3 h(z)CL com faint och mottles
 70-90 10YR6/3 (s)C com dist och mottles
 Impenetrable gravel @ 90 cm
 Wetness Class II Grade 2
- 15 0-30 10YR4/4 vfSL/ZL non calc 1-2% flints
 30-45 10YR5/4 vfSL/ZL no mottles v few stones
 45-70 7.5YR5/4 hCL few faint och mottles
 70-90 10YR5/2 C com dist och mottles
 Impenetrable stones @ 90 cm
 Wetness Class II Grade 2
- 16 0-30 10YR4/3 mCL 5-7% flints non calc
 30-50 10YR5/5 hCL 15-20% flints
 Impenetrable flints @ 50 cm
 Wetness Class I? Grade 3a
- 17 0-30 10YR4/3 SCL 5% flints non calc
 30-40 10YR5/4 SCL few faint och mottles v hard & dry
 Impenetrable flints @ 40 cm
 Wetness Class I/II Grade 3a/b?
- 18 0-27 10YR3/3 mCL calc 5% flints
 27-50 10YR5/4 SCL 15-20% flints
 Impenetrable flints @ 50 cm
 Wetness Class I Grade 3a
- 19 0-30 10YR3/3 mCL calc 5-7% small & med flints
 30-40 10YR4/4 gravelly mCL 25-30% flints
 Impenetrable flints @ 40 cm
 Wetness Class I Grade 3b
- 21 0-30 10YR3/4 mCL 8-10% small & med flints
 30-55 10YR5/4 hCL 15-20% flints
 55-90 2.5Y5/2 SC com dist och mottles 5-10% flints
 90-110 N2/0 C few faint dark brown mottles
 Impenetrable gravel @ 110 cm
 Wetness Class II Grade 3a (stony upper layers)
- 22 0-30 10YR4/3 fSL/mCL non calc 3-5% flints
 30-50 10YR4/4 hCL no mottles
 Impenetrable gravel @ 50 cm
 Wetness Class I? Grade 3a
- 23 0-30 10YR4/3 fSL+ non calc 2-3% flints
 30-70 10YR5/4 m(z)CL no mottles
 Impenetrable flints @ 70 cm
 Wetness Class I Grade 2

- 24 0-30 10YR4/3 m(z)CL non calc 1-2% flints
 30-50 10YR5/4 mCL no mottles 5% flints
 50-70 10YR5/4 hCL few faint och mottles
 Impenetrable stone @ 70 cm
 Wetness Class I Grade 2
- 25 0-30 10YR4/3 fSCL/mCL 3-4% small flints non calc
 30-70 10YR5/5 m/hCL no mottles no stones
 70-90 10YR6/4 fSCL no mottles
 90-120 10YR6/4 mSL few flints
 Wetness Class I Grade 2
- 26 0-28 10YR4/3 mCL 2-3% small & med flints
 28-60 10YR5/6 hCL no mottles no stones
 60-85 10YR5/4 hCL com faint becoming dist och mottles sl
 stony
 Impenetrable flints @ .85 cm
 Wetness Class II Grade 2
- 27 0-27 10YR3/3 mCL calc 5-7% small & med flints
 27-50 10YR4/3 SCL/CL few dist och mottles 10% small
 flints
 Impenetrable gravel @ 50 cm
 Wetness Class I/II Grade 3a
- 28 0-20 7.5YR3/3 mZCL calc 6-8% small & med flints
 20-30 10YR4/3 v gravelly hCL 25-30% stones
 Impenetrable gravel @ 30 cm
 Wetness Class ? Grade 3b
- 29 0-25 10YR3/4 hZCL calc 3-5% small flints
 25-60 10YR6/3 hCL/C com dist och mottles 5% flints v sl
 calc
 60-120 2.5Y6/2 (s)C com dist och mottles 10% flints
 becoming wet & v plastic below 80 cm
 Wetness Class IV Grade 3b
- 30 0-25 10YR4/3 mCL 1-2% flints non calc
 25-55 10YR5/5 mCL no mottles non calc
 55-70 2.5Y5/2 hCL com dist och mottles v few flints
 70-90 2.5Y6/3 fSCL com dist och mottles v few flints
 Impenetrable flints @ 90 cm
 Wetness Class II Grade 2
- 31 0-25 10YR4/3 mCL 2-3% flints non calc
 25-55 10YR5/6 hCL no mottles
 55-120 10YR6/3 fSCL/SL com dist och mottles calc
 Wetness Class II Grade 2
- 32 0-30 10YR3/3 mCL/hCL calc 8-10% small & med flints
 30-45 10YR4/3 hCL few och mottles 10-15% flints
 Impenetrable gravel @ 45 cm
 Wetness Class I/II? Grade 3a/b

- 33 0-20 10YR3/3 hZCL calc
20-60 10YR6/2 hZCL com prom och mottles calc soft &
plastic
60-80 2.5Y6/2 hCL com dist och mottles becoming SC at
75 cm soft & plastic
Impenetrable gravel @ 80 cm
Wetness Class IV Grade 3b
- 34 0-28 10YR4/4 mCL 2-3% small & med flints non calc
28-60 10YR5/5 mCL/SCL no mottles calc no stones
Impenetrable gravel @ 60 cm
Wetness Class I Grade 2/3a