

SITE NAME		PROFILE NO	SLOPE AND ASPECT		LAND USE		Av Rainfall		668 mm		PARENT MATERIAL		
Rockbears Quarr		Pit 1	2° East		PGR		ATO		1441 day °C		Valley Gravels		
JOB NO		DATE	GRID REFERENCE		DESCRIBED BY		FC Days		194		SOIL SAMPLE REFERENCES		
125/94		12/1/95	SY 071 957 (ASP 55)		PB/HLJ		Climatic Grade		1		RPT/PB/224		
							Exposure Grade		1				

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	28	MCL	7 5YR44	2 / HR >2cm (S) 9 HR <2cm (S+D) 11 HR Total	None	None	WMSAB	Friable	G	Good	MF VF		Gradual smooth
2	42	MSL	10YR64	20% HR Total (vis)	FFMO+G (10YR68) (7 5YR72)	None	WMSAB	Friable	G	Good	MVF		Gradual smooth
3	70	SCL	7 5YR64	12 HR >2cm (S) 35 / HR <2cm (S+D) 47 1/2 HR Total	CDMO+G 7 5YR58 7 5YR72	Few	WCSAB	Friable	M	Good	CVF		Gradual smooth
4	100+	C	7 5YR54 (2 5YR44)	35% HR Total (Vis)	CDMO 7 5YR58	None	WCSAB	Firm	P	Poor	FVF		

Profile Gievd From 42cm  
Depth to Slowly Permeable Horizon 70cm  
Wetness Class II  
Wetness Grade 3a

NL336k

Available Water Wheat 106 mm  
Potatoes 88 mm  
Moisture Deficit Wheat 91 mm  
Potatoes 79 mm  
Moisture Balance Wheat 15 mm  
Potatoes 14 mm  
Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 3a  
Main Limiting Factor(s) Wetness

Remarks  
Weak SPL It is higher up in other borings H3 is very variable

SITE NAME		PROFILE NO	SLOPE AND ASPECT		LAND USE		Av Rainfall		968 mm		PARENT MATERIAL		
Rockbenre Quarry		Pit 2	3° East		PGR		ATO		1441 day °C		Valley Gravels		
JOB NO		DATE	GRID REFERENCE		DESCRIBED BY		FC Days		194		SOIL SAMPLE REFERENCES		
125/94		11/1/94	SY 069 957 (ASP 53)		PB/HLJ		Climatic Grade		1		RPT/PB/225		
							Exposure Grade		1				

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	26	MCL	7 5YR44	12 HR >2cm (S) 18 HR <2cm (S+D) 30 HR Total	None	None	WCSAB	Friable	M	G	MF VF		Gradual smooth
2	42	MCL	10YR54+ 7 5YR64	20 / HR >2cm (S) 29 HR <2cm (S+D) 49 HR Total	FFFO (7 5YR68)	None	WCSAB	Friable	M	G	CVF		Gradual smooth
3	56	SC	0 5YR53	35% HR Total (Vis)	CDMO (7 5YR58)	None	WCSAB	Firm	P	G	FVF		Clear smooth
4	100+	C	7 5YR64	35% HR Total (Vis)	MDMO (7 5YR58) (2 5YR48)	None	WACSAB	Firm	P	P	FVF		

Profile Gleyed From 42 cm

Depth to Slowly Permeable Horizon 56 cm

Wetness Class III

Wetness Grade 3a

NL336k

Available Water Wheat 88 mm

Potatoes 72 mm

Moisture Deficit Wheat 91 mm

Potatoes 79 mm

Moisture Balance Wheat 3 mm

Potatoes 7 mm

Droughtiness Grade 3a (Calculated to 120 cm)

Final ALC Grade 3a

Main Limiting Factor(s) Wetness and Droughtiness

Remarks

Marginal spl because few pores and roots still evident despite poor porosity

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	968 mm	PARENT MATERIAL	
Rockbeare Quarry		Pit 3 (ASP 59)	3° East	Ley	ATO	1441 day °C	Valley Gravels	
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	194	SOIL SAMPLE REFERENCES	
125/94		13/1/95	SY 068 956	PB/HLJ	Climatic Grade	1	RPT/PB/226	
					Exposure Grade	1		

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	23	MCL	7 5YR43	12 >2cm (S) 15 <2cm (S+D) 27 HR	None	None	MM+CSAB	Friable	M	Good	MF VF		Clear wavy
2	40	MCL	7 5YR43	15 >2cm (S) 18 <2cm (S+D) 33 / HR	None	None	MCSAB	Friable	M	Good	CF VF		Clear wavy
3	65	HCL	7 5YR54	22 >2cm (S) 15 <2cm (S+D) 37 HR	FDFOM	None	WCSAB	Friable	M	Good	FVF		Clear wavy
4	120+	HCL	7 5YR54	8 / >2cm (S) 10 <2cm (S+D) 18 1/2 HR	MDMOGM (7 5YR58 7 5YR73)	None	MMAB	Friable	M	Good	FVF		

Profile Gleyed From 65 cm

Depth to Slowly Permeable Horizon No SPL

Wetness Class 1

Wetness Grade 2

NL336k

Available Water Wheat 115 mm

Potatoes 82 mm

Moisture Deficit Wheat 91 mm

Potatoes 79 mm

Moisture Balance Wheat +24 mm

Potatoes +3 mm

Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 3a

Main Limiting Factor(s) Topsoil Stoniness

Remarks

Pit dug to 100 cm

Pit located in an area of land that is slightly better quality

SITE NAME Rockbears Quarry		PROFILE NO Pit 4	SLOPE AND ASPECT 4° East	LAND USE PGR	Av Rainfall 968 mm ATO 1441 day °C	PARENT MATERIAL Valley Gravels	
JOB NO 125/94		DATE 13/1/95	GRID REFERENCE SY 067 960 (ASP 25)	DESCRIBED BY PB/HLJ	FC Days 194 Climatic Grade 1 Exposure Grade 1	SOIL SAMPLE REFERENCES RPT/PB/227	

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	20	MCL	10YR43	5 HR >2cm (S) 13 HR <2cm (S+D) 18 / HR Total	None	None	WCSAB	Friable	M	Good	MF VF		Clear smooth
2	35	MCL	10YR43	20 HR >2cm (S) 35 / HR <2cm (S+D) 55 / HR Total	None	None	WCSAB	Friable	M	Good	MF VF		Gradual wavy
3	50	HCL	7.5YR43	55% HR Total (Vis)	FFFO 7.5YR56	None	WCSAB	Friable	M	Good	CVF		Gradual wavy
4	64	C	7.5YR64	42% HR Total (Vis)	MDMO 7.5YR58 0.5YR58	None	WA	Firm	P	Poor	CVF		Clear wavy
5	105	C	7.5YR64	15 HR >2cm (S) 27 HR <2cm (S+D) 42 / HR Total	MDMO 7.5YR58 0.5YR58	None	WA	Firm	P	Poor	FVF		

Profile Gleyed From 50cm

Depth to Slowly Permeable Horizon 50cm

Wetness Class III

Wetness Grade 3a

Available Water Wheat 83 mm

Potatoes 69 mm

Moisture Deficit Wheat 91 mm

Potatoes 79 mm

Moisture Balance Wheat 8 mm

Potatoes 10 mm

Droughtiness Grade 3a (Calculated to 120 cm)

Final ALC Grade 3a

Main Limiting Factor(s) Wetness and Droughtiness

Remarks

Indeterminate structure in H4 + H5

# SOIL PLASTICITY RECORDING SHEET

ANNEX 2

## SITE DATA

<u>Grid Ref</u> SY 09 NE	<u>Site Name</u> Rockbeare Quarry	<u>LPA</u> Devon CC
<u>AAR</u> 968	<u>ATO</u> 1441	<u>FCD</u> 194
	<u>MD (wheat)</u> 91	<u>MD (potatoes)</u> 79

## SOIL PIT DATA

<u>PIT ONE</u> SY 071 957 SOIL SERIES Newnham				<u>PIT TWO</u> SY 069 957 SOIL SERIES Newnham			<u>PIT THREE</u> SY 068 956 SOIL SERIES Newnham		
DEPTH	TEXTURE	PLASTIC Y/N	COMMENTS	TEXTURE	PLASTIC Y/N	COMMENTS	TEXTURE	PLASTIC Y/N	COMMENTS
10 cm	MCL	N	No Ball	MCL	N	No Ball	MCL	N	Ball No Worm
20 cm	MCL	N	No Ball	MCL	N	Cracking worm	MCL	N	Ball No Worm
30 cm	MSL	Y	Worm	MCL	N	No Ball	MCL	N	Ball No Worm
40 cm	MSL	Y	Worm	MCL	Y	Worm	MCL	N	Ball No Worm
50 cm	MSL	Y	Worm	MCL	Y	Worm	HCL	N	Ball No Worm
60 cm	MSL	Y	Worm	SC	Y	Worm	HCL	N	Ball (just) No worm

INL569