## **APPENDIX 3: SOIL PIT DESCRIPTIONS**

Pit 1						
Depth mm	Colour	Texture	Gleyed	Structure/ (Drought structure)	Stones total (>2 cm in topsoil)	Porosity
0 - 250	10YR3/3 Dark brown	C (calc)	no	m f sab	30% (25%)	-
250 - 450	10YR4/4 Dark yellowish brown	С	no	wk f sab/ (average)	80%	>0.5%
450 - 1200	10YR7/6 Yellow	SCL	no	v wk f ab/ (average)	75%	>0.5%

Roots: many to 500 mm few to 700/750 mm

Gleyed: none <700 mm Slowly permeable layer: none <800 mm Wetness Class: 1

Moisture balance: Wheat: -49mm Potatoes: -45mm (model cut at 950mm)

Main Limitation: DR/ST Grade: 3b/4

Pit 2							
Depth mm	Colour	Texture	Gleyed	Structure/ (Drought structure)	Stones total (>2 cm in topsoil)	Porosity	
0 – 250 (psd)	10YR3/3 Dark brown	C (calc)	no	st f sab	20% (15%)	-	
250 - 600	10YR5/6 Yellowish brown	С	no	wk f ab (average)	50%	>0.5%	
600 - 1200	10YR6/6 Brownish yellow	SCL	no	wk f ab (poor)	80%	>0.5%	

Roots: Maximum rooting 600 mm

Gleyed: none<700 mm. Slowly permeable layer: none<800 mm. Wetness Class: 1

Moisture balance: Wheat: -39mm Potatoes: -26mm (drought model cut at 800mm)

Main Limitation: DR/ST Grade: 3b

Pit 3						
Depth mm	Colour	Texture	Gleyed	Structure/ (Drought structure)	Stones total (>2 cm in topsoil)	Porosity
0 – 270	10YR4/3	ZC	no	wk f sab	25%	-
(psd)	Dark brown	(calc)			(20%)	
270 - 500	10YR4/4	ZC	no	too stony	80%	>0.5%
	Dark yellowish			to assess		
	brown			(poor)		
500 - 700	10YR5/6	С	no	wk f ab	40%	>0.5%
	Yellowish			(poor)		
	brown					
700 - 1200	10YR5/6	С	no	too stony	80%	>0.5%
	Yellowish			to assess		
	brown			(poor)		

**Roots:** many to 600 mm – v few to 850 mm, growing between the stones

**Gleyed:** none <700 mm **Slowly permeable layer:** none < 800 mm. Wetness Class: 1

Main Limitation: DR/ST Grade: 3b

Pit 4							
Depth mm	Colour	Texture	Gleyed	Structure/ (Drought structure)	Stones total (>2 cm in topsoil)	Porosity	
0 - 250	10YR4/4 Dark brown	C (calc)	no	m m sab	5% (4%)	-	
250 - 450	10YR5/6 Yellowish brown	O	no	wk m sab/ (poor)	75%	>0.5%	
450 - 1200	10YR6/6 Brownish yellow	O	no	-/ (poor)	60%	>0.5%	

Roots: mainly to 450 mm, v few to 600

Gleyed: none < 700 mm. Slowly permeable layer: none<800 mm. Wetness Class: 1
Moisture balance: Wheat: -44 Potatoes: -31 (model cut at 750mm)

*Main Limitation*: DR Grade: 3b

Pit 5							
Depth mm	Colour	Texture	Gleyed	Structure/ (Drought structure)	Stones total (>2 cm in topsoil)	Porosity	
0 - 280 (psd)	10YR4/3 Dark brown	C (calc)	no	wk f sab	30% (25%)	-	
280 - 500	10YR5/6 Yellowish brown	C	no	wk f sab/ (poor)	85%	>0.5%	
500 - 1200	10YR6/6 Brownish yellow	C/SCL	no	wk f sab (poor)	70%	>0.5%	

Roots: mainly to 550 mm

Gleyed: none < 700 mm. Slowly permeable layer: none<800 mm. Wetness Class: 1

Moisture balance: Wheat: -55mm Potatoes: -44mm (model cut at 800mm)

Main Limitation: DR/ST Grade: 4