

SITE NAME Sowton		PROFILE NO. Pit 1		SLOPE AND ASPECT 0°		LAND USE Potatoes		Av Rainfall: 800 mm ATO: 1564 deg FC Days: 169 Climatic Grade: 1			PARENT MATERIAL Lower Sandstone Topsoil Sample RPT/GMS 313		
JOB NO. 108/93		DATE 13/12/93		GRID REFERENCE ASP 104 SX 973 930		DESCRIBED BY PB/GMS							
Horizon Number	Lowest Av Depth (cm)	Matrix and Ped Face Colours	Texture	Stoniness: Size, Shape, Type, and Field Method	Mottling Abundance, Contrast, Size and Colour	Structure: Development Size and Shape	Pores and Fissures	Structural Condition	Consistence	Roots: Abundance, Size and Nature	Calcium Carbonate Content	Mangan Concs etc	Horizon Boundary: Distinctness and form
1	25	7.5YR32	LMS	>1% HR >2 cm 3% HR >2 mm 3% HR total sieved/displ	none					Common fine + v. fine	none	none	Diffuse smooth
2	80	7.5YR42	LMS	2% HR visual	none	MCAB	good	good	Friable	Few v. fine	none	none	Sharp smooth
3	110+	7.5YR66	LMS	0% visual	none	MC Platy	Low	Moderate	Friable	None	None	None	

Profile Gleyed From: Not gleyed

Depth to Slowly Permeable Horizon: no SPL

Wetness Class: I

Wetness Grade: 2  
(LS not eligible for Grade 1)

Available Water Wheat: 96 mm

Potatoes: 74 mm

Moisture Deficit Wheat: 111 mm

Potatoes: 105 mm

Moisture Balance Wheat: -15 mm

Potatoes: -31 mm

Droughtiness Grade: 3B

Final ALC Grade: 3B

Main Limiting Factor(s): Droughtiness

Remarks: Horizon 3 banded layers.

Borderline 3A, placed in 3A mapping unit.

SITE NAME		PROFILE NO.		SLOPE AND ASPECT		LAND USE		Av Rainfall: 800 mm			PARENT MATERIAL		
Sowton		Pit 2		0°		Winter cereal		ATO: 1564 deg			Lower Sandstone		
JOB NO.		DATE		GRID REFERENCE		DESCRIBED BY		FC Days: 169			Topsoil Sample		
108/93		13/12/93		ASP 50 SX 973 935		PB/GMS		Climatic Grade: 1			RPT/GMS 315		
Horizon Number	Lowest Av Depth (cm)	Matrix and Ped Face Colours	Texture	Stoniness: Size, Shape, Type, and Field Method	Mottling Abundance, Contrast, Size and Colour	Structure: Development Size and Shape	Pores and Fissures	Structural Condition	Consistence	Roots: Abundance, Size and Nature	Calcium Carbonate Content	Mangan Concs etc	Horizon Boundary: Distinctness and form
1	28	5YR43	LMS	4% HR <2 mm sieved/displ	none					Common v. fine	none	none	Gradual smooth
2	85	5YR44	LMS	2% HR >2 mm 2% HR >2 cm 4% Total HR sieved/displ	none	MCSAB	Good	Good	V. friable	Common v. fine in pores	none	none	Clear wavy
3	110+	5YR58	MS	none	none	WCSAB	Good	Moderate	V. Friable	none	none	none	

Profile Gleyed From: not gleyed

Depth to Slowly Permeable Horizon: no SPL

Wetness Class: I

Wetness Grade: 2 (is not eligible for Grade 1)

Available Water Wheat: 94 mm

Potatoes: 74 mm

Moisture Deficit Wheat: 111 mm

Potatoes: 105 mm

Moisture Balance Wheat: -17 mm

Potatoes: 31 mm

Droughtiness Grade: 3B

Final ALC Grade: 3B

Main Limiting Factor(s): Droughtiness

Remarks:

Borderline 3A, placed in 3A mapping unit

SITE NAME		PROFILE NO.		SLOPE AND ASPECT		LAND USE		Av Rainfall: 800 mm			PARENT MATERIAL		
Sowton		Pit 3		1° S		Swedes		ATO: 1564 deg			Lower Sandstone		
JOB NO.		DATE		GRID REFERENCE		DESCRIBED BY		FC Days: 169			Topsoil Sample		
108/93		15.12.93		ASP 80 SX 978 933		PB/GMS		Climatic Grade: 1			RPT/GMS 325		
Horizon Number	Lowest Av Depth (cm)	Matrix and Ped Face Colours	Texture	Stoniness: Size, Shape, Type, and Field Method	Mottling Abundance, Contrast, Size and Colour	Structure: Development Size and Shape	Pores and Fissures	Structural Condition	Consistence	Roots: Abundance, Size and Nature	Calcium Carbonate Content	Mangan Concs etc	Horizon Boundary: Distinctness and form
1	30	5YR43	LMS	<1% HR > 2cm 4% HR > 2mm 5% HR Total sieved/displ	none		good			Many medium + v. fine	none	none	Gradual smooth
2	50	5YR44	LMS	large stones 5% HR visual	none	MCSAB	good	good	Friable	Common v. fine	none	none	Gradual smooth
3	85	5YR46	LMS	1% HR > 2mm sieved/displ	none	WCSAB	good	good	Very friable	Few v. fine	none	none	Clear smooth
4	120	2.5YR48	MSL	0%	none	WCPL	poor	Moderate	Very friable	none	none	none	

Profile Gleyed From: not gleyed

Depth to Slowly Permeable Horizon: no SPL

Wetness Class: I

Wetness Grade: 2 (LS not eligible for Grade 1)

Available Water Wheat: 119 mm

Potatoes: 75 mm

Moisture Deficit Wheat: 111 mm

Potatoes: 105 mm

Moisture Balance Wheat: 8 mm

Potatoes: -30 mm

Droughtiness Grade: 3B/3A

Final ALC Grade: 3A

Main Limiting Factor(s): Droughtiness

Remarks:

SITE NAME		PROFILE NO.		SLOPE AND ASPECT		LAND USE		Av Rainfall: 800 mm		PARENT MATERIAL			
Sowton		Pit 4		6/4° SW		Ley		ATO: 1564 deg		Lower Sandstone			
JOB NO.		DATE		GRID REFERENCE		DESCRIBED BY		FC Days: 169		Tospoil Sample			
108/93		15.12.93		ASP 101 SX 977 931		PB/GMS		Climatic Grade: 1		RPT/GMS 316			

Horizon Number	Lowest Av Depth (cm)	Matrix and Ped Face Colours	Texture	Stoniness: Size, Shape, Type, and Field Method	Mottling Abundance, Contrast, Size and Colour	Structure: Development Size and Shape	Pores and Fissures	Structural Condition	Consistence	Roots: Abundance, Size and Nature	Calcium Carbonate Content	Mangan Concs etc	Horizon Boundary: Distinctness and form
1	30	5YR43	MSL	2% HR > 2cm 9% HR > 2mm 11% HR Total sieved/displ	none					Many v. fine	none	none	Gradual smooth
2	55	5YR44	MSL	3% HR > 2cm 6% HR > 2mm % HR Total sieved/displ	none	MCSAB	Good	Moderate	Friable	Common v. fine	none	none	Gradual smooth
3	100	5YR46	MSL	9% HR > 2mm sieved/displ	none	MCSAB	Good	Moderate	Friable	Few v. fine	none	none	Gradual smooth
4	120	2.5YR48	LMS	none	none	WC Platy	Poor	Moderate	V. friable	none	none	none	

Profile Gleyed From: not gleyed

Depth to Slowly Permeable Horizon: no SPL

Wetness Class: I

Wetness Grade: 1

Available Water Wheat: 133 mm

Potatoes: 101 mm

Moisture Deficit Wheat: 111 mm

Potatoes: 105 mm

Moisture Balance Wheat: +22 mm

Potatoes: -4 mm

Droughtiness Grade: 2

Final ALC Grade: 2

Main Limiting Factor(s): Droughtiness

Remarks:

SITE NAME		PROFILE NO.	SLOPE AND ASPECT		LAND USE		Av Rainfall: 800 mm			PARENT MATERIAL			
Sowton		Pit 5	3° N		Cer		ATO: 1564 deg			Lower Sandstone			
JOB NO.		DATE	GRID REFERENCE		DESCRIBED BY		FC Days: 169			Topsoil Sample			
108/93		15/12/93	ASP 3 SX 975 939		GMS/PB		Climatic Grade: 1			RPT/GMS 317			
Horizon Number	Lowest Av Depth (cm)	Matrix and Ped Face Colours	Texture	Stoniness: Size, Shape, Type, and Field Method	Mottling Abundance, Contrast, Size and Colour	Structure: Development Size and Shape	Pores and Fissures	Structural Condition	Consistence	Roots: Abundance, Size and Nature	Calcium Carbonate Content	Mangan Concs etc	Horizon Boundary: Distinctness and form
1	30	5YR43	MSL	4% >2 mm sieve	0	-	Good	-	-	CVF	0	0	Clear smooth
2	65	5YR44	MSL	4% as above	0	MCSAB	Good	Good	Friable	CVF	0	0	Gradual smooth
3	100	2.5YR46	MSL	0	0	MCSAB	Good	Good	Friable	FVF	0	0	Clear smooth
4	120	2.5YR48	MCL	0	0	MCSAB	Good	Good	Friable	None	0	0	

Profile Gleyed From: Not gleyed

Depth to Slowly Permeable Horizon: No SPL

Wetness Class: I

Wetness Grade: 1

Available Water Wheat: 174 mm

Potatoes: 115 mm

Moisture Deficit Wheat: 111 mm

Potatoes: 105 mm

Moisture Balance Wheat: 63 mm

Potatoes: +10 mm

Droughtiness Grade: 2

Final ALC Grade: 2

Main Limiting Factor(s): Droughtiness

Remarks:

Borderline Grade 1