Project Name: APL
Project Code: APL **Site ID:** H273 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: K.D. Nicholls
Date Desc.: 23/04/70
Map Ref.:
Northing/Long.: 147.0666667
Easting/Lat.: -42.99166667
Locality: Sammys Orchard
Elevation: No Data
Rainfall: 800
Runoff: Slow
Drainage: Poorly drained

Geology

ExposureType: Soil pit
Geol. Ref.: No Data
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Auger boring, 1.4 m deep,Mudstone

Land Form

Rel/Slope Class: No Data
Morph. Type: No Data
Elem. Type: No Data
Slope: 0 %
Pattern Type: Terrace (alluvial)
Relief: No Data
Slope Category: No Data
Aspect: No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Eutrophic Mottled-Mesonatric Grey Sodosol
ASC Confidence:
No analytical data are available but confidence is fair.
Mapping Unit: N/A
Principal Profile Form: Dy3.42
Great Soil Group: Solodic soil

Site Disturbance: Cultivation. Irrigated, past or present

Vegetation:

Surface Coarse Fragments:

Profile Morphology

Ap	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); ; Sandy loam; Weak grade of structure, 2-5 mm, Subangular blocky; Moderately moist; Firm consistence; Non-plastic; 2-10%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; Diffuse change to -
A1	0.1 - 0.13 m	Dark greyish brown (10YR4/2-Moist); Light grey (10YR7/2-Dry); ; Sandy loam; Weak grade of structure, 2-5 mm, Subangular blocky; Moderately moist; Firm consistence; Non-plastic; 2-10%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; Clear change to -
A1A2	0.13 - 0.2 m	Dark greyish brown (10YR4/2-Moist); Light grey (10YR7/2-Dry); ; Sandy loam (Heavy); Weak grade of structure, 2-5 mm, Subangular blocky; Moderately moist; Very firm consistence; Non-plastic;
A2	0.2 - 0.24 m	Grey (10YR6/1-Dry); ; Sandy loam (Heavy); Massive grade of structure; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very firm consistence; Non-plastic; Few (2 - 10 %), Ferruginous, , ; Sharp, Tongued change to -
BA2	0.24 - 0.3 m	Dark greyish brown (10YR4/2-Moist); , 7.5YR56; Medium clay; Moderate grade of structure, 50-100 mm, Prismatic; Moderate grade of structure, 20-50 mm, Subangular blocky; Fine, (0 - 5) mm crack; Moist; Firm consistence; Slightly plastic; Normal plasticity;
B	0.3 - 0.4 m	Dark greyish brown (2.5Y4/2-Moist); , 7.5YR58; Medium heavy clay; Moderate grade of structure, 50-100 mm, Prismatic; Moderate grade of structure, 20-50 mm, Subangular blocky; Fine, (0 - 5) mm crack; Moist; Very plastic; Normal plasticity; FewDiffuse change to -
B	0.4 - 0.5 m	Dark greyish brown (2.5Y4/2-Moist); , 7.5YR58; Medium heavy clay; Weak grade of structure, 50-100 mm, Prismatic; Weak grade of structure, 20-50 mm, Subangular blocky; Fine, (0 - 5) mm crack; Moist; Moderately plastic; Normal plasticity; FewDiffuse change to -
B	0.5 - 0.6 m	Strong brown (7.5YR5/8-Moist); , 2.5Y62; Medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Moist; Moderately plastic; Normal plasticity; Diffuse change to -
BC	0.6 - 0.7 m	Strong brown (7.5YR5/8-Moist); , 2.5Y62; Medium clay; Massive grade of structure; Moist; Moderately plastic; Normal plasticity; Diffuse change to -
BC	0.7 - 0.8 m	Strong brown (7.5YR5/8-Moist); , 2.5Y62; Medium clay; Massive grade of structure; Moist; Firm consistence; Non-plastic; Diffuse change to -

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C	0.8 - 1 m	Light brownish grey (2.5Y6/2-Moist); , 7.5YR58; , 10YR56; Heavy clay; Massive grade of structure; Moist; Weak consistence; Non-plastic; Common (10 - 20 %), Manganiferous, , Concretions; Diffuse change to -
	1.1 - 1.3 m	Light brownish grey (2.5Y6/2-Moist); , 7.5YR58; , 10YR56; Sandy light clay; Massive grade of structure; Weak consistence; Non-plastic; Few (2 - 10 %), Manganiferous, , Concretions; Diffuse change to -

Morphological Notes

Observation Notes

110-130CM RESIDUAL STRUCTURE OF HIGHLY W`D DR BOULDERS:ODD DR GV 20-200MM SCATTERED THROUGH PROFILE:

Site Notes

SAMMYS ORCHARD

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.1	6A	0.16A								
0.1 - 0.13	5.6A	0.12A								
0.13 - 0.2	5.1A	0.1A								
0.2 - 0.24	5.7A	0.05A								
0.24 - 0.3	5.5A	0.09A								
0.3 - 0.4	5.5A	0.11A								
0.4 - 0.5	5.7A	0.12A								
0.5 - 0.6	5.9A	0.12A								
0.6 - 0.7	6.3A	0.13A								
0.7 - 0.8	6.7A	0.15A								
0.8 - 1	7A	0.16A								
1.1 - 1.3	7.1A	0.14A								

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis			
								GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1					0.204A				15D	42	23	14
0.1 - 0.13					0.204A				15D	43	23	14
0.13 - 0.2					0.166A							
0.2 - 0.24					0.037A				23D	41	23	12
0.24 - 0.3												
0.3 - 0.4					0.087A				5D	12	9	71
0.4 - 0.5					0.09A				3D	8	12	76
0.5 - 0.6									3D	9	15	71
0.6 - 0.7												
0.7 - 0.8									12D	21	18	46
0.8 - 1												
1.1 - 1.3									16D	28	24	27

Depth	COLE	Gravimetric/Volumetric Water Contents						K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar	
m		g/g - m3/m3						mm/h	mm/h
0 - 0.1									
0.1 - 0.13									
0.13 - 0.2									
0.2 - 0.24									
0.24 - 0.3									
0.3 - 0.4									
0.4 - 0.5									
0.5 - 0.6									
0.6 - 0.7									
0.7 - 0.8									
0.8 - 1									
1.1 - 1.3									

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Laboratory Analyses Completed for this profile

2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
MIN_EC	Exchange Capacity - Minerology
P10_PB_C	Clay (%) - Plummet balance
P10_PB_CS	Coarse sand (%) - Plummet balance
P10_PB_FS	Fine sand (%) - Plummet balance
P10_PB_Z	Silt (%) - Plummet balance
XRD_C_Gt	Geothite - X-Ray Diffraction
XRD_C_Is	Interstratified clay minerals - X-Ray Diffraction
XRD_C_K2O	K2O - X-Ray Diffraction or Clay Fraction (air dry)
XRD_C_Ka	Kaolin - X-Ray Diffraction
XRD_C_Qz	Quartz - X-Ray Diffraction
XRD_C_Vm	Vermiculte - X-Ray Diffraction