Project Name: HEL
Project Code: HEL **Site ID:** H140 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: J. Loveday
Date Desc.: 22/03/56
Map Ref.: Sheet No. : 8015 1:100000
Northing/Long.: 144.67
Easting/Lat.: -41.0166667
Locality: 3.2KM WNW of Yolla 3.6KM south of Oldina:
Elevation: 366 metres
Rainfall: 1440
Runoff: Slow
Drainage: Imperfectly drained

Geology

ExposureType: Soil pit
Geol. Ref.: No Data
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Auger boring, 1.6 m deep,Basalt

Land Form

Rel/Slope Class: Gently undulating plains <9m 1-3%
Morph. Type: No Data
Elem. Type: Fill-top
Slope: 0 %
Pattern Type: Plateau
Relief: No Data
Slope Category: Very gently sloped
Aspect: 0 degrees

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Humose-Acidic Mesotrophic Red Ferrosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Gn4.11
Great Soil Group: Krasnozem

Site Disturbance: Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A	0 - 0.05 m	Dark reddish brown (5YR3/4-Moist); ; Clay loam; Strong grade of structure, <2 mm, Subangular blocky; Moist; Weak consistence; 0-2%, Charcoal, coarse fragments; Diffuse change to -
A	0.05 - 0.13 m	Dark reddish brown (5YR3/4-Moist); ; Clay loam; Strong grade of structure, <2 mm, Subangular blocky; Moist; Weak consistence; Clear change to -
B	0.14 - 0.23 m	Reddish brown (5YR4/4-Moist); ; Medium clay; Strong grade of structure, 2-5 mm, Angular blocky; Moist; Weak consistence; Diffuse change to -
B	0.23 - 0.36 m	Reddish brown (5YR4/4-Moist); ; Medium clay; Strong grade of structure, 2-5 mm, Angular blocky; Moist; Weak consistence; Diffuse change to -
B	0.36 - 0.54 m	Reddish brown (5YR4/4-Moist); ; Medium clay; Weak grade of structure, 2-5 mm, Angular blocky; Moist; Weak consistence; 0-2%, coarse gravelly, 20-60mm, Basalt, coarse fragments; Diffuse change to -
BC	0.64 - 0.74 m	Yellowish red (5YR4/5-Moist); ; Light clay; Massive grade of structure; Moist; Weak consistence; 10-20%, Basalt, coarse fragments; Diffuse change to -
BC	0.74 - 0.89 m	Yellowish red (5YR4/5-Moist); ; Light clay; Massive grade of structure; Moist; Very firm consistence; 20-50%, Basalt, coarse fragments; Diffuse change to -
BC	0.89 - 1.04 m	Yellowish red (5YR4/6-Moist); ; Light clay; Massive grade of structure; Moist; Very firm consistence; 20-50%, Basalt, coarse fragments; Very few (0 - 2 %), Unidentified, Fine (0 - 2 mm), Concretions; Diffuse change to -
	1.04 - 1.24 m	Yellowish red (5YR4/6-Moist); ; Light clay; Massive grade of structure; Very firm consistence; 20-50%, Basalt, coarse fragments;
	1.6 - 1.63 m	Black (5YR2/1-Moist); ; 50-90%, Gravel, coarse fragments;
	1.63 - 1.73 m	;

Morphological Notes

On parent material:

Observation Notes

0-5CM WORMS ACTIVE:160-163CM MEALY DECOMPOSED BA:74-163CM BLACK STAINING ON GRAVELS:

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Site Notes
YOLLA

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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 - 0.05	5.1A		5.8H	2.5	1	0.01	37.3H 63.5E			
0.05 - 0.13	5A									
0.14 - 0.23	4.7A		2.2H	2.5	0.26		22.6H 45.2E			
0.23 - 0.36	5.2A									
0.36 - 0.54	4.7A									
0.64 - 0.74	4.7A									
0.74 - 0.89	4.8A									
0.89 - 1.04	4.7A									
1.04 - 1.24	4.7A									
1.6 - 1.63	4.5A									

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 - 0.05		10.1D		0.206D	0.65A				2D	13	30	29
0.05 - 0.13		8.4D			0.419A							
0.14 - 0.23		4.9D			0.275A				2D	9	33	46
0.23 - 0.36												
0.36 - 0.54												
0.64 - 0.74												
0.74 - 0.89												
0.89 - 1.04												
1.04 - 1.24												
1.6 - 1.63												

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 - 0.05									
0.05 - 0.13									
0.14 - 0.23									
0.23 - 0.36									
0.36 - 0.54									
0.64 - 0.74									
0.74 - 0.89									
0.89 - 1.04									
1.04 - 1.24									
1.6 - 1.63									

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Laboratory Analyses Completed for this profile

15E1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15G_C_H1	Exchangeable hydrogen - meq per 100g of soil - Hydrogen By back titration of A or B
15G1_H	Hydrogen Cation - meq per 100g of soil - 1M KCl Exch. Acidity By titration to pH 8.0
2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A_HCL	Total element - P(%) - By boiling HCl
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