

Project Name: 1968 ISSS Congress Tour
Project Code: IS3 **Site ID:** A1004 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (SA)

Site Information

Desc. By:	G. Blackburn	Locality:	
Date Desc.:	09/12/66	Elevation:	No Data
Map Ref.:	Sheet No. : SI54-9 1:250000	Rainfall:	0
Northing/Long.:	138.647222222222	Runoff:	Rapid
Easting/Lat.:	-34.975	Drainage:	No Data

Geology

ExposureType:	No Data	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	No Data	Substrate Material:	No Data

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	No Data	Relief:	152 metres
Elem. Type:	Fan	Slope Category:	No Data
Slope:	4 %	Aspect:	No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Haplic Calcic Red Chromosol	Principal Profile Form:	N/A
ASC Confidence:	Great Soil Group:	Red-brown earth
All necessary analytical data are available.		

Site Disturbance: Complete clearing. Pasture, native or improved, but never cultivated

Vegetation:

Surface Coarse Fragments:

Profile Morphology

0 - 0.05 m	Dark reddish brown (5YR3/3-Moist); ; Fine sandy loam; Moderate grade of structure, 5-10 mm, Subangular blocky; Weak consistence; 2-10%, Gravel, coarse fragments; Common
0.05 - 0.1 m	Dark reddish brown (5YR3/4-Moist); ; Fine sandy loam; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 20-50 mm, Subangular blocky; Weak consistence; 2-10%, subangular, Gravel, coarse fragments; Common
0.1 - 0.15 m	Red (2.5YR4/8-Moist); ; 5YR3/4; Fine sandy loam; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 20-50 mm, Subangular blocky; Weak consistence; 10-20%, Gravel, coarse fragments; CommonDiffuse change to -
0.15 - 0.2 m	Dark reddish brown (5YR3/4-Moist); ; Fine sandy loam; Moderate grade of structure, 5-10 mm, Subangular blocky; Weak consistence; 10-20%, subangular, Gravel, coarse fragments; Many
0.2 - 0.26 m	Red (2.5YR4/8-Moist); ; Clay loam; Moderate grade of structure, 5-10 mm, Subangular blocky; Weak consistence; 10-20%, Gravel, coarse fragments; CommonSharp change to -
0.26 - 0.3 m	Dark red (2.5YR3/6-Moist); ; Medium clay; Moderate grade of structure, 2-5 mm, Subangular blocky; Moderate grade of structure, 20-50 mm, Subangular blocky; Weak consistence; 0-2%, Gravel, coarse fragments; Common, coarse (>5mm) roots;
0.3 - 0.4 m	Dark red (2.5YR3/6-Moist); ; Medium clay; Strong grade of structure, 2-5 mm, Subangular blocky; Strong grade of structure, 20-50 mm, Subangular blocky; Weak consistence; 0-2%, Gravel, coarse fragments; Common, coarse (>5mm) roots;
0.4 - 0.5 m	Dark red (2.5YR3/6-Moist); ; Medium clay; Strong grade of structure, 2-5 mm, Subangular blocky; Strong grade of structure, 20-50 mm, Subangular blocky; Weak consistence; 2-10%, Gravel, coarse fragments; Common
0.5 - 0.6 m	Dark red (2.5YR3/6-Moist); ; Medium clay; Strong grade of structure, 2-5 mm, Subangular blocky; Strong grade of structure, 50-100 mm, Subangular blocky; Firm consistence; 0-2%, angular, Gravel, coarse fragments; Many
0.6 - 0.7 m	Dark red (2.5YR3/6-Moist); ; Medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Strong grade of structure, 50-100 mm, Subangular blocky; Very firm consistence; 0-2%, Gravel, coarse fragments; Many

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0.7 - 0.8 m	Dark red (2.5YR3/6-Moist); ; Medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Strong grade of structure, 50-100 mm, Subangular blocky; Very firm consistence; 10-20%, Gravel, coarse fragments; Very few (0 - 2 %), Calcareous, , Soft segregations; Common, coarse (>5mm) roots;
0.8 - 0.9 m	Dark red (2.5YR3/6-Moist); , 2.5YR48; Medium clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Moderate grade of structure, 50-100 mm, Subangular blocky; Very firm consistence; 10-20%, Gravel, coarse fragments; Few (2 - 10 %), Calcareous, , Soft segregations; Few
0.9 - 1 m	Yellowish red (5YR4/6-Moist); , 2.5YR36; Medium clay; Weak grade of structure, 5-10 mm, Subangular blocky; Weak grade of structure, 20-50 mm, Subangular blocky; Firm consistence; 2-10%, Gravel, coarse fragments; Common (10 - 20 %), Calcareous, , Soft segregations; Few
1 - 1.1 m	Strong brown (7.5YR5/6-Moist); ; Medium clay; Weak grade of structure, 5-10 mm, Subangular blocky; Weak grade of structure, 20-50 mm, Subangular blocky; Firm consistence; 2-10%, Gravel, coarse fragments; Common (10 - 20 %), Calcareous, , Soft segregations;
1.1 - 1.2 m	Yellowish brown (10YR5/6-Moist); , 7.5YR56; , 5YR46; Medium clay; Weak grade of structure, 5-10 mm, Subangular blocky; Weak grade of structure, 20-50 mm, Subangular blocky; Firm consistence; 2-10%, Gravel, coarse fragments; Common (10 - 20 %), Calcareous, , Soft segregations; Few
1.2 - 1.3 m	Yellowish brown (10YR5/6-Moist); , 5YR48; Medium clay; Weak grade of structure, 5-10 mm, Subangular blocky; Weak grade of structure, 20-50 mm, Subangular blocky; Firm consistence; Common (10 - 20 %), Calcareous, , Soft segregations; Few
1.3 - 1.4 m	Yellowish brown (10YR5/6-Moist); , 5YR48; , 2.5YR46; Medium clay; Weak grade of structure, 5-10 mm, Subangular blocky; Weak grade of structure, 20-50 mm, Subangular blocky; Firm consistence; 0-2%, Gravel, coarse fragments; Common (10 - 20 %), Calcareous, , Soft segregations; Few
1.4 - 1.5 m	Strong brown (7.5YR5/6-Moist); , 5YR58; , 10YR56; Medium clay; Weak grade of structure, 5-10 mm, Subangular blocky; Weak grade of structure, 50-100 mm, Subangular blocky; Firm consistence; 0-2%, Gravel, coarse fragments; Common (10 - 20 %), Calcareous, , ; Few
1.5 - 1.6 m	Yellowish red (5YR4/6-Moist); , 7.5YR56; , 2.5YR46; Medium clay; Weak grade of structure, 5-10 mm, Subangular blocky; Weak grade of structure, 50-100 mm, Subangular blocky; Very firm consistence; 2-10%, Gravel, coarse fragments; Common (10 - 20 %), Calcareous, , Soft segregations; Few
1.6 - 1.7 m	Yellowish red (5YR4/6-Moist); , 7.5YR56; Medium clay; Weak grade of structure, 5-10 mm, Subangular blocky; Weak grade of structure, 50-100 mm, Subangular blocky; Strong consistence; 2-10%, Gravel, coarse fragments; Common (10 - 20 %), Calcareous, , Soft segregations; Few
1.7 - 1.8 m	Yellowish red (5YR4/6-Moist); , 7.5YR56; Medium clay; Weak grade of structure, 5-10 mm, Subangular blocky; Weak grade of structure, 50-100 mm, Subangular blocky; Strong consistence; Common (10 - 20 %), Calcareous, , Soft segregations; Few
1.8 - 1.9 m	Yellowish red (5YR4/6-Moist); , 10YR54; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 20-50 mm, Subangular blocky; Firm consistence; 2-10%, Gravel, coarse fragments; Common (10 - 20 %), Calcareous, , Soft segregations;
1.9 - 2 m	Yellowish red (5YR4/6-Moist); , 10YR54; , 2.5YR56; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 20-50 mm, Subangular blocky; Very firm consistence; 2-10%, Gravel, coarse fragments; Few (2 - 10 %), Calcareous, , Soft
2 - 2.1 m	Yellowish red (5YR4/6-Moist); , 10YR54; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 20-50 mm, Subangular blocky; Very firm consistence; 2-10%, Gravel, coarse fragments; Few (2 - 10 %), Calcareous, , Soft
2.1 - 2.2 m	Yellowish red (5YR4/6-Moist); , 7.5YR56; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 50-100 mm, Subangular blocky; Strong consistence; 0-2%, Gravel, coarse fragments; Few (2 - 10 %), Calcareous, , Soft
2.2 - 2.3 m	Yellowish red (5YR5/6-Moist); , 2.5YR58; , 7.5YR56; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 50-100 mm, Subangular blocky; Strong consistence; 0-2%, Gravel, coarse fragments; Few (2 - 10 %), Calcareous, , Soft
2.3 - 2.4 m	Yellowish red (5YR5/6-Moist); , 10YR56; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 50-100 mm, Subangular blocky; Strong consistence; 0-2%, Gravel, coarse fragments; Few (2 - 10 %), Calcareous, , Soft

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2.4 - 2.5 m	Strong brown (7.5YR5/6-Moist); , 5YR56; , 10YR66; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 50-100 mm, Subangular blocky; Strong consistence; 0-2%, Gravel, coarse fragments; Few (2 - 10 %), Calcareous, , Soft
2.5 - 2.6 m	Yellowish brown (10YR5/4-Moist); , 5YR36; , 2.5YR58; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 50-100 mm, Subangular blocky; Strong consistence; 0-2%, Gravel, coarse fragments; Few (2 - 10 %), Calcareous, , Soft segregations;
2.6 - 2.7 m	Yellowish brown (10YR5/4-Moist); , 7.5YR56; , 2.5YR48; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 50-100 mm, Subangular blocky; Strong consistence; 0-2%, Gravel, coarse fragments; Few (2 - 10 %), Calcareous, , Soft segregations;
2.7 - 2.8 m	Yellowish red (5YR5/8-Moist); , 10YR54; , 7.5YR56; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 50-100 mm, Subangular blocky; Very firm consistence; 0-2%, Gravel, coarse fragments; Few (2 - 10 %), Calcareous, , Soft segregations; Common, very fine (0-1mm) roots;
2.8 - 2.9 m	Yellowish red (5YR5/8-Moist); , 10YR54; , 7.5YR56; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 50-100 mm, Subangular blocky; Very firm consistence; 0-2%, Gravel, coarse fragments; Few (2 - 10 %), Calcareous, , Soft segregations; Common, very fine (0-1mm) roots;
2.9 - 3 m	Strong brown (7.5YR5/6-Moist); , 10YR56; , 5YR56; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 50-100 mm, Subangular blocky; Strong consistence; 0-2%, Gravel, coarse fragments; Few (2 - 10 %), Calcareous, , Soft segregations; Common, very fine (0-1mm) roots;
3 - 3.1 m	Yellowish brown (10YR5/4-Moist); , 7.5YR56; , 2.5YR48; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 50-100 mm, Subangular blocky; Strong consistence; 2-10%, Gravel, coarse fragments; Few (2 - 10 %), Calcareous, , Soft segregations; Common, very fine (0-1mm) roots;
3.1 - 3.2 m	Strong brown (7.5YR5/6-Moist); , 5YR46; , 10YR54; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 50-100 mm, Subangular blocky; Very firm consistence; 10-20%, Gravel, coarse fragments; Few (2 - 10 %), Calcareous, , Soft segregations;
3.2 - 3.3 m	Yellowish brown (10YR5/4-Moist); , 2.5YR46; , 10YR68; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 50-100 mm, Subangular blocky; Firm consistence; 10-20%, Gravel, coarse fragments; Very few (0 - 2 %), Calcareous, , Soft segregations;
3.3 - 3.4 m	Yellowish red (5YR4/8-Moist); , 10YR56; , 10YR56; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 10-20 mm, Subangular blocky; Firm consistence; 10-20%, Gravel, coarse fragments; Very few (0 - 2 %), Calcareous, , Soft segregations;
3.4 - 3.5 m	Yellowish red (5YR4/8-Moist); , 10YR56; , 10YR56; Clay loam; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 10-20 mm, Subangular blocky; Weak consistence; 10-20%, Gravel, coarse fragments; Very few (0 - 2 %), Calcareous, , Soft segregations;
3.5 - 3.6 m	; Clay loam;
3.6 - 3.7 m	Reddish brown (2.5YR5/4-Moist); , 10YR54; , 7.5YR56; Clay loam; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 10-20 mm, Subangular blocky; Very firm consistence; 2-10%, Gravel, coarse fragments; Very few (0 - 2 %), Calcareous, , Soft segregations; Common
3.7 - 3.8 m	;
3.8 - 3.9 m	; Fine sandy clay loam; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 10-20 mm, Subangular blocky; Very firm consistence; 10-20%, Gravel, coarse fragments; Very few (0 - 2 %), Calcareous, , Soft segregations; Common

Morphological Notes

Observation Notes

MANGANESE CONCRETIONS THROUGHOUT

Site Notes

WAITE ARBORETU

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na Cmol (+)/kg	Acidity		%
0 - 0.05	6.8H	0.038C	9.4K	1.5	2.3	0.21			
0.05 - 0.1	6.3H	0.025C	7.2K	1.5	1.5	0.19			
0.1 - 0.15	6.3H	0.025C	6.7K	1.2	1.3	0.14			
0.15 - 0.2	6.7H	0.027C	6.8K	1	1.2	0.14			
0.2 - 0.26	7.8H	0.062C	10K	0.77	1.1	0.15			
0.26 - 0.3	7.1H	0.027C							
0.3 - 0.4	7.1H	0.021C							
0.4 - 0.5	7.2H	0.027C							
0.5 - 0.6	7.4H	0.026C							
0.6 - 0.7	7.6H	0.022C							
0.7 - 0.8	7.8H	0.056C							
0.8 - 0.9	8.1H	0.055C							
0.9 - 1	8.4H	0.046C							
1 - 1.1	8.4H	0.048C							
1.1 - 1.2	8.4H	0.047C							
1.2 - 1.3									
1.3 - 1.4									
1.4 - 1.5									
1.5 - 1.6									
1.6 - 1.7									
1.7 - 1.8									
1.8 - 1.9									
1.9 - 2									
2 - 2.1									
2.1 - 2.2									
2.2 - 2.3									
2.3 - 2.4									
2.4 - 2.5									
2.5 - 2.6									
2.6 - 2.7									
2.7 - 2.8									
2.8 - 2.9									
2.9 - 3									
3 - 3.1									
3.1 - 3.2									
3.2 - 3.3									
3.3 - 3.4									
3.4 - 3.5									
3.5 - 3.6									
3.6 - 3.7									
3.7 - 3.8									
3.8 - 3.83									

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.05						0.21B						
0.05 - 0.1						0.12B						
0.1 - 0.15						0.083B						
0.15 - 0.2						0.065B						
0.2 - 0.26						0.049B						

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0.26 - 0.3
0.3 - 0.4
0.4 - 0.5
0.5 - 0.6
0.6 - 0.7
0.7 - 0.8
0.8 - 0.9
0.9 - 1
1 - 1.1
1.1 - 1.2
1.2 - 1.3
1.3 - 1.4
1.4 - 1.5
1.5 - 1.6
1.6 - 1.7
1.7 - 1.8
1.8 - 1.9
1.9 - 2
2 - 2.1
2.1 - 2.2
2.2 - 2.3
2.3 - 2.4
2.4 - 2.5
2.5 - 2.6
2.6 - 2.7
2.7 - 2.8
2.8 - 2.9
2.9 - 3
3 - 3.1
3.1 - 3.2
3.2 - 3.3
3.3 - 3.4
3.4 - 3.5
3.5 - 3.6
3.6 - 3.7
3.7 - 3.8
3.8 - 3.83

[illegible]

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1.4 - 1.5
1.5 - 1.6
1.6 - 1.7
1.7 - 1.8
1.8 - 1.9
1.9 - 2
2 - 2.1
2.1 - 2.2
2.2 - 2.3
2.3 - 2.4
2.4 - 2.5
2.5 - 2.6
2.6 - 2.7
2.7 - 2.8
2.8 - 2.9
2.9 - 3
3 - 3.1
3.1 - 3.2
3.2 - 3.3
3.3 - 3.4
3.4 - 3.5
3.5 - 3.6
3.6 - 3.7
3.7 - 3.8
3.8 - 3.83

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Laboratory Analyses Completed for this profile

15_NR_CA	Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded
15_NR_K	Exch. basic cations (K++) - meq per 100g of soil - Not recorded
15_NR_MG	Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded
15_NR_NA	Exch. basic cations (Na++) - meq per 100g of soil - Not recorded
2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
3A_TSS	Electrical conductivity or soluble salts - Total soluble salts %
4_NR	pH of soil - Not recorded
5_NR	Water soluble Chloride - Cl(%) - Not recorded
7_NR	Total nitrogen (%) - Not recorded