

Project Name: Regional
Project Code: REG **Site ID:** T341 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	R.J. Coventry	Locality:	On western part of Denna Plain opposite microwave tower.
Date Desc.:	24/06/75	Elevation:	No Data
Map Ref.:	Sheet No. : 7856 1:100000	Rainfall:	600
Northing/Long.:	144.838888888889	Runoff:	No Data
Easting/Lat.:	-20.819444444445	Drainage:	No Data

Geology

Exposure Type:	Existing vertical exposure	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:	No Data
Elem. Type:	No Data	Slope Category:	No Data
Slope:	0 %	Aspect:	No Data

Surface Soil Condition (dry): N/A

Erosion:

Soil Classification

Australian Soil Classification:	Ferric Mesotrophic Yellow Kandosol	Mapping Unit:	N/A
ASC Confidence:	All necessary analytical data are available.	Principal Profile Form:	Gn2.25
		Great Soil Group:	Yellow earth

Site Disturbance: No effective disturbance other than grazing by hoofed animals

Vegetation: Low Strata - Hummock grass, 0.26-0.5m, Sparse. *Species includes - Triodia pungens
 Mid Strata - Tree, 3.01-6m, Isolated plants. *Species includes - None recorded
 Tall Strata - Tree, 6.01-12m, Very sparse. *Species includes - Eucalyptus whitei, Eucalyptus papuana, Eucalyptus dichromophloia

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.09 m	Dark greyish brown (10YR4/2-Moist); Greyish brown (10YR5/2-Dry); , 0-0% ; , 0-0% ; Sandy loam (Heavy); Weak grade of structure, 5-10 mm, Platy; Massive grade of structure; Dry; Weak consistence; Many, fine (1-2mm) roots; Gradual change to -
A2	0.09 - 0.2 m	Yellowish brown (10YR5/4-Moist); Brown (10YR5/3-Dry); , 0-0% ; , 0-0% ; Sandy loam; Weak grade of structure, 5-10 mm, Platy; Massive grade of structure; Dry; Very weak consistence;
A2	0.2 - 0.3 m	Yellowish brown (10YR5/4-Moist); Brown (10YR5/3-Dry); , 0-0% ; , 0-0% ; Loamy sand; Weak grade of structure, 5-10 mm, Platy; Massive grade of structure; Dry; Very weak consistence; Diffuse change to -
B1	0.3 - 0.6 m	Yellowish brown (10YR5/8-Moist); Brownish yellow (10YR6/6-Dry); , 0-0% ; , 0-0% ; Sandy loam; Massive grade of structure; Dry; Very weak consistence;
B1	0.6 - 0.7 m	Yellowish brown (10YR5/8-Moist); Brownish yellow (10YR6/6-Dry); , 0-0% ; , 0-0% ; Sandy clay loam (Heavy); Massive grade of structure; Dry; Very weak consistence; Gradual change to -
B2	0.7 - 0.9 m	Brownish yellow (10YR6/8-Moist); , 0-0% ; , 0-0% ; Sandy medium clay; Massive grade of structure; Moist; Very firm consistence;
B2	0.9 - 1.2 m	Brownish yellow (10YR6/6-Moist); , 0-0% ; , 0-0% ; Sandy medium clay; Massive grade of structure; Moist; Very firm consistence; 20-50%, rounded, Quartz, coarse fragments; Many (20 - 50 %), Ferruginous, , Nodules; Gradual change to -
C1	1.2 - 1.5 m	Dusky red (10R3/4-Moist); , 10YR6/1, 20-50% , 5-15mm, Prominent; , 20-50% , 5-15mm, Prominent; Clayey sand; Massive grade of structure; Moist; Very firm consistence; 2-10%, rounded, Quartz, coarse fragments; Very many (50 - 100 %), Ferruginous, , Nodules;
C1	1.5 - 1.8 m	Dusky red (10R3/4-Moist); , 10YR6/1, 20-50% , 5-15mm, Prominent; , 20-50% , 5-15mm, Prominent; Clayey sand; Massive grade of structure; Moist; Very firm consistence; 2-10%, rounded, Quartz, coarse fragments; Very many (50 - 100 %), Ferruginous, , Nodules; Clear change to -

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C2	1.8 - 2.1 m	Yellowish brown (10YR5/8-Moist); , 7.5YR70, 20-50% , 15-30mm, Prominent; , 20-50% , 15-30mm, Prominent; Heavy clay; Dry; Very strong consistence; 0-2%, rounded, Quartz, coarse fragments;
C2	2.1 - 2.3 m	Yellowish brown (10YR5/8-Moist); , 7.5YR70, 20-50% , 15-30mm, Prominent; , 20-50% , 15-30mm, Prominent; Heavy clay; Dry; Very strong consistence; 0-2%, rounded, Quartz, coarse fragments;

Morphological Notes

Observation Notes

PEBBLE AT 230 CM PREVENTED DEEPER AUGERING.

Site Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.09	6.2A	0.038A	2.22H	0.61	0.18	0.02	0.22F	3.69A	3.3F	0.54
0.09 - 0.2	6.6A	0.025A								
0.2 - 0.3	6.8A	0.017A	1H	0.33	0.16	0.02	0.18F	1.7A	1.7F	1.18
0.3 - 0.6	6.7A	0.017A								
0.6 - 0.7	5.8A	0.019A	0.65H	0.74	0.17	0.02	0.34F	2.77A	1.9F	0.72
0.7 - 0.9	5.4A									
0.9 - 1.2	5.7A	0.02A	0.19H	1.28	0.07	0.05	0.23F	2.27A	1.8F	2.20
1.2 - 1.5	6.6A	0.23A								
1.5 - 1.8	6.9A	0.28A								
1.8 - 2.1	7.2A	0.068A								
2.1 - 2.3	7.2A	0.051A								

Depth m	CaCO3	Organic	Avail.	Total	Total	Total	Bulk Density Mg/m3	Particle		Size	Analysis	
	%	C %	P mg/kg	P %	N %	K %		GV	CS	FS %	Silt	Clay
0 - 0.09		0.51D		0.004A	0.033A	0.08A		0	58A	28	4	10
0.09 - 0.2		0.22D	6B		0.014A			1	54A	33	3	11
0.2 - 0.3		0.13D	3B	0.001A	0.009A	0.08A		1	53A	33	3	11
0.3 - 0.6			3B					1	48A	31	3	17
0.6 - 0.7								1	48A	26	3	22
0.7 - 0.9				0.004A		0.13A		5	49A	28	3	21
0.9 - 1.2				0.003A		0.09A		60	49A	21	4	20
1.2 - 1.5								61	55A	27	4	15
1.5 - 1.8								49	59A	28	5	9
1.8 - 2.1								15	25A	16	4	55
2.1 - 2.3								14	41A	27	4	32

[illegible]

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Laboratory Analyses Completed for this profile

10A1	Total sulfur - X-ray fluorescence
15A2_CEC	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15E1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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	Exchange acidity (hydrogen and aluminium) - meq per 100g of soil - By 1M KCl exch. acidity by titration to pH 8.4
15J1	Effective CEC
17A1	Total potassium - X-ray fluorescence
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A1	Total phosphorus - X-ray fluorescence
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H ₂ SO ₄ (BSES)
MIN_EC	Exchange Capacity - Minerology
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_CS	Coarse sand (%) - Coventry and Fett pipette method
P10_CF_FS	Fine sand (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method
P10_GRAV	Gravel (%)
XRD_C_II	Illite - 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