

Project Name: Regional
Project Code: REG **Site ID:** T228 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	R.J. Coventry	Locality:	18 Km E. of Torrens Ck.
Date Desc.:	16/11/76	Elevation:	No Data
Map Ref.:	Sheet No. : 7956 1:100000	Rainfall:	600
Northing/Long.:	145.194444444444	Runoff:	No Data
Easting/Lat.:	-20.727777777778	Drainage:	No Data

Geology

ExposureType:	Soil pit	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:		Mapping Unit:	N/A
Bleached-Sodic Magnesic Yellow Kandosol		Principal Profile Form:	Gn2.64
ASC Confidence:		Great Soil Group:	Yellow earth

All necessary analytical data are available.

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

Vegetation: Low Strata - Tussock grass, 0.51-1m, Sparse. *Species includes - None recorded

Tall Strata - Tree, 3.01-6m, Very sparse. *Species includes - Eucalyptus similis, Grevillea pteridifolia

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); Brown (10YR5/3-Dry); , 7.5YR58, 0-2% , 0-5mm, Distinct; , 0-2% , 0-5mm, Distinct; Fine sandy clay loam; Massive grade of structure; Dry; Strong consistence; Common, fine (1-2mm) roots; Diffuse change to -
A3	0.1 - 0.2 m	Yellowish brown (10YR5/4-Moist); Very pale brown (10YR7/4-Dry); , 7.5YR58, 0-2% , 0-5mm, Distinct; , 0-2% , 0-5mm, Distinct; Fine sandy clay loam; Massive grade of structure; Dry; Strong consistence; Common, fine (1-2mm) roots; Gradual change to -
B1	0.2 - 0.3 m	Brownish yellow (10YR6/6-Moist); Yellow (10YR7/6-Dry); , 10YR68, 2-10% , 0-5mm, Distinct; , 2-10% , 0-5mm, Distinct; Fine sandy clay loam; Massive grade of structure; Dry; Strong consistence; Common, fine (1-2mm) roots;
B1	0.3 - 0.4 m	Brownish yellow (10YR6/6-Moist); Yellow (10YR7/6-Dry); , 10YR68, 2-10% , 0-5mm, Distinct; , 2-10% , 0-5mm, Distinct; Fine sandy clay loam (Heavy); Massive grade of structure; Dry; Strong consistence; Common, fine (1-2mm) roots; Diffuse change to -
B2	0.4 - 0.6 m	Brownish yellow (10YR6/6-Moist); Very pale brown (10YR7/4-Dry); , 7.5YR58, 20-50% , 5-15mm, Faint; , 20-50% , 5-15mm, Faint; Sandy light clay; Massive grade of structure; Dry; Strong consistence; Few (2 - 10 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Common, fine (1-2mm) roots; Clear change to -
BC	0.6 - 0.7 m	Yellowish brown (10YR5/4-Moist); , 2.5YR36, 20-50% , 5-15mm, Distinct; , 20-50% , 5-15mm, Distinct; Sandy medium clay; Massive grade of structure; Dry; Strong consistence; Very many (50 - 100 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Common, fine (1-2mm) roots; Clear change to -
C1	0.7 - 0.9 m	Dark red (2.5YR3/6-Moist); , 7.5YR58, 20-50% , 15-30mm, Prominent; , 5Y71, 20-50% , 15-30mm, Prominent; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Very many (50 - 100 %), Ferruginous, Coarse (6 - 20 mm), Nodules;
C1	0.9 - 1.2 m	Dark red (2.5YR3/6-Moist); , 7.5YR58, 20-50% , 15-30mm, Prominent; , 5Y71, 20-50% , 15-30mm, Prominent; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Very many (50 - 100 %), Ferruginous, Coarse (6 - 20 mm), Nodules;

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C1	1.2 - 1.5 m	Dark red (2.5YR3/6-Moist); , 7.5YR58, 20-50% , 15-30mm, Prominent; , 5Y71, 20-50% , 15-30mm, Prominent; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Many (20 - 50 %), Ferruginous, Coarse (6 - 20 mm), Nodules;
C1	1.5 - 1.8 m	Dark red (2.5YR3/6-Moist); , 7.5YR58, 20-50% , 15-30mm, Prominent; , 5Y71, 20-50% , 15-30mm, Prominent; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Many (20 - 50 %), Ferruginous, Coarse (6 - 20 mm), Nodules;
C1	1.8 - 2.1 m	Dark red (2.5YR3/6-Moist); , 7.5YR58, 20-50% , 15-30mm, Prominent; , 5Y71, 20-50% , 15-30mm, Prominent; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Many (20 - 50 %), Ferruginous, Coarse (6 - 20 mm), Nodules;
C1	2.1 - 2.4 m	Dark red (2.5YR3/6-Moist); , 7.5YR58, 20-50% , 15-30mm, Prominent; , 5Y71, 20-50% , 15-30mm, Prominent; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Many (20 - 50 %), Ferruginous, Coarse (6 - 20 mm), Nodules;
C1	2.4 - 2.5 m	Dark red (2.5YR3/6-Moist); , 7.5YR58, 20-50% , 15-30mm, Prominent; , 5Y71, 20-50% , 15-30mm, Prominent; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Many (20 - 50 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Diffuse change to -
C2	2.5 - 2.7 m	Light grey (10YR7/1-Moist); , 7.5YR56, 20-50% , 15-30mm, Prominent; , 2.5YR36, 20-50% , 15-30mm, Prominent; Sandy light clay; Massive grade of structure; Dry; Very strong consistence; 20-50%, cobbly, 60-200mm, rounded, Quartz, coarse fragments;
C2	2.7 - 3 m	Light grey (10YR7/1-Moist); , 7.5YR56, 20-50% , 15-30mm, Prominent; , 2.5YR36, 20-50% , 15-30mm, Prominent; Sandy light clay; Massive grade of structure; Dry; Very strong consistence; 20-50%, cobbly, 60-200mm, rounded, Quartz, coarse fragments;
C2	3 - 3.3 m	Light grey (10YR7/1-Moist); , 7.5YR56, 20-50% , 15-30mm, Prominent; , 2.5YR36, 20-50% , 15-30mm, Prominent; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments;
C2	3.3 - 3.46 m	Light grey (10YR7/1-Moist); , 7.5YR56, 20-50% , 15-30mm, Prominent; , 2.5YR36, 20-50% , 15-30mm, Prominent; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; 0-2%, medium gravelly, 6-20mm, rounded, Quartz, coarse fragments;

Morphological Notes

Observation Notes

Site Notes

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Laboratory Test Results:

Depth m	pH	1:5 EC	Exchangeable Cations			Exchangeable Acidity		CEC	ECEC	ESP
		dS/m	Ca	Mg	K	Na Cmol	(+)/kg			%
0 - 0.1	5.5A	0.024A	0.41H	0.89	0.06	0.16	0.25F	2.06A	1.8F	7.77
0.1 - 0.2	5.5A	0.023A								
0.2 - 0.3	5.5A	0.021A	<0.02H	1.28	0.04	0.3	0.4F	2.45A	2F	12.24
0.3 - 0.4	5.3A	0.032A								
0.4 - 0.6	5.9A	0.021A	<0.02H	1.58	0.04	0.3	0.36F	2.81A	2.3F	10.68
0.6 - 0.7	6.1A	0.019A								
0.7 - 0.9	5.7A	0.018A	<0.02H	2.12	0.04	0.4	0.19F	3.38A	2.8F	11.83
0.9 - 1.2	5.9A	0.021A								
1.2 - 1.5	6A	0.024A								
1.5 - 1.8	6A	0.029A								
1.8 - 2.1	5.8A	0.021A								
2.1 - 2.4	5.9A	0.028A								
2.4 - 2.5	6A	0.026A								
2.5 - 2.7	5.6A	0.029A								
2.7 - 3	5.2A	0.028A								
3 - 3.3	5.2A	0.035A								
3.3 - 3.46	5.8A	0.023A								

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 - 0.1		0.49D	8B	0.007A	0.041A	0.04A		2	33A	40	8	19
0.1 - 0.2		0.34D	6B		0.028A			2	30A	39	8	23
0.2 - 0.3		0.2D	6B	0.005A	0.014A	0.05A		1	29A	37	7	27
0.3 - 0.4								4	30A	35	7	29
0.4 - 0.6								9	31A	31	6	32
0.6 - 0.7								61	34A	29	6	30
0.7 - 0.9				0.009A		0.06A		74	34A	27	6	33
0.9 - 1.2								58	51A	22	6	21
1.2 - 1.5								50	34A	26	8	22
1.5 - 1.8								51	28A	25	8	39
1.8 - 2.1								49	29A	23	7	41
2.1 - 2.4								45	33A	19	6	42
2.4 - 2.5								49	36A	19	6	39
2.5 - 2.7								47	35A	16	5	43
2.7 - 3								23	42A	14	5	39
3 - 3.3								7	45A	16	6	33
3.3 - 3.46								3	43A	14	6	38

[illegible]

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0.9 - 1.2
1.2 - 1.5
1.5 - 1.8
1.8 - 2.1
2.1 - 2.4
2.4 - 2.5
2.5 - 2.7
2.7 - 3
3 - 3.3
3.3 - 3.46

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Laboratory Analyses Completed for this profile

10A1	Total sulfur - X-ray fluorescence
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
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)
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 (%)