**Project Name:** Regional

**Project Code:** Site ID: T338 Observation ID: 1 REG

**Agency Name: CSIRO Division of Soils (QLD)** 

**Site Information** 

R.J. Coventry Locality: High terrace of Torrens Ck .6 Km W of creek.

Desc. By: Date Desc.: Elevation: 30/10/73 No Data Sheet No.: 7956 1:100000 Map Ref.: Rainfall: 600 Northing/Long.: 145.0222222222 Runoff: No Data Easting/Lat.: -20.768055555556 Drainage: No Data

Geology

ExposureType: Undisturbed soil core Conf. Sub. is Parent. Mat.: No Data **Substrate Material:** No Data Geol. Ref.: No Data

**Land Form** 

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

Surface Soil Condition (dry): N/A

**Erosion:** 

**Soil Classification** 

Australian Soil Classification: **Mapping Unit:** N/A Haplic Mesotrophic Red Kandosol **Principal Profile Form:** Gn2.14 **ASC Confidence: Great Soil Group:** Red earth

All necessary analytical data are available.

<u>Site Disturbance:</u> Complete clearing. Pasture, native or improved, but never cultivated

**Vegetation:** Low Strata - Tussock grass, 0.51-1m, Sparse. \*Species includes - Heteropogon contortus

Surface Coarse Fragments: No surface coarse fragments

**Profile Morphology** 

A1	0 - 0.1 m	Dark reddish brown (2.5YR2/4-Moist); Yellowish red (5YR4/6-Dry); ; Loamy sand; Massive grade of structure; Dry; Weak consistence;
A1	0.1 - 0.2 m	Dark red (10R3/6-Moist); Dark red (2.5YR3/6-Dry); ; Loamy sand; Massive grade of structure; Dry; Weak consistence; Gradual change to -
A3	0.2 - 0.3 m	Dark red (10R3/6-Moist); Dark red (2.5YR3/5-Dry); ; Loamy sand (Heavy); Massive grade of structure; Dry; Very weak consistence; 0-2%, Charcoal, coarse fragments; Gradual change to -
B1	0.3 - 0.6 m	Dark red (10R3/6-Moist); Dark red (10R3/6-Dry); ; Sandy clay loam; Massive grade of structure; Dry; Strong consistence; Diffuse change to -
B21	0.6 - 0.9 m	Dark red (10R3/6-Moist); Dark red (10R3/6-Dry); ; Sandy light clay; Massive grade of structure; Dry; Strong consistence; Few (2 - 10 %), Argillaceous, Coarse (6 - 20 mm), Nodules; Diffuse change to -
B22	0.9 - 1.2 m	Dark red (10R3/6-Moist); ; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; Few (2 - 10 %), Argillaceous, Medium (2 -6 mm), Nodules;
B22	1.2 - 1.5 m	Dark red (10R3/6-Moist); ; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; Few (2 - 10 %), Argillaceous, Medium (2 -6 mm), Nodules;
B22	1.5 - 1.8 m	Dark red (10R3/6-Moist); ; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; Few (2 - 10 %), Argillaceous, Medium (2 -6 mm), Nodules;
B22	1.8 - 2.1 m	Dark red (10R3/6-Moist); ; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; Few (2 - 10 %), Argillaceous, Medium (2 -6 mm), Nodules;
B22	2.1 - 2.4 m	Dark red (10R3/6-Moist); ; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; Few (2 - 10 %), Argillaceous, Medium (2 -6 mm), Nodules;
B22	2.4 - 2.7 m	Dark red (10R3/6-Moist); ; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; 0-2%, medium gravelly, 6-20mm, rounded, Quartz, coarse fragments; Few (2 - 10 %), Argillaceous, Medium (2 -6 mm), Nodules; Diffuse change to -
C1	2.7 - 3 m	Dark red (10R3/6-Moist); ; Sandy medium clay; Massive grade of structure; Dry; Strong consistence; 0-2%, medium gravelly, 6-20mm, rounded, Quartz, coarse fragments; Very few (0 - 2 %), Argillaceous, Medium (2 -6 mm), Nodules;

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	C1	3 - 3.5 m	Dark red (10R3/6-Moist); ; Sandy medium clay; Massive grade of structure; Dry; Strong consistence; 0-2%, medium gravelly, 6-20mm, rounded, Quartz, coarse fragments; Very few (0 - 2 %), Argillaceous, Medium (2 -6 mm), Nodules;
	C1	3.5 - 4 m	Dark red (10R3/6-Moist); ; Sandy medium clay; Massive grade of structure; Dry; Strong consistence; 0-2%, medium gravelly, 6-20mm, rounded, Quartz, coarse fragments; Very few (0 - 2 %), Argillaceous, Medium (2 -6 mm), Nodules; Gradual change to -
	C2	4 - 4.5 m	Dark red (10R3/6-Moist); ; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; , Argillaceous, Medium (2 -6 mm), Nodules;
	C2	4.5 - 5 m	Dark red (2.5YR3/6-Moist); ; Sandy medium clay; Massive grade of structure; Dry; Very strong consistence; , Argillaceous, Medium (2 -6 mm), Nodules;

## **Morphological Notes**

## **Observation Notes**

SOME PEDOTURBATION IN A1, A3, AND B1.

## Site Notes

TORRENS CK

Observation ID: 1

Project Name: Project Code: Agency Name: Regional REG Site ID: T338 CSIRO Division of Soils (QLD)

Depth	рН	1:5 EC		hangeable	Cations K	Na	Exchangeable Acidity	CEC		ECEC	E	SP
m		dS/m	Ca i	Vig	N.	Cmol (+					9	6
0 - 0.1	6.7A	0.037A	1.68H	0.57	0.28	0.02	0.21F	2.8	A	2.8F	0	.71
0.1 - 0.2 0.2 - 0.3	6.8A 6.8A 6A	0.033 <i>A</i> 0.29A 0.028 <i>A</i>	1.13H	0.34	0.38	0.02	0.12F	1.95	A	2F	1	.03
0.3 - 0.6 0.6 - 0.9 0.9 - 1.2	6.5A 6.5A	0.028/ 0.028/ 0.026/	1.64H	0.57	0.31	0.03	0.18F	2.8	A	2.7F	1	.07
1.2 - 1.5 1.5 - 1.8	6.7A 6.7A	0.026/ 0.026/ 0.029/	1.8H	0.64	0.16	80.0	0.18F	2.83	A	2.9F	2	.83
1.8 - 2.1 2.1 - 2.4	6.7A 6.7A	0.025/ 0.023/	1.68H	0.63	0.08	0.06	0.1F	1.99	A	2.5F	3	.02
2.4 - 2.7 2.7 - 3	6.7A 7A	0.025A 0.015A										
3 - 3.5	7A	0.022										
3.5 - 4	7.1A	0.029										
4 - 4.5 4.5 - 5	7.2A 7.2A	0.035 <i>A</i> 0.04A										
4.5 - 5	1.20	0.047										
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	I Bulk Density	Pa GV	rticle CS	Size /	Analysis Silt (	Clav
m	%	%	mg/kg	%	%	%	Mg/m3	٠,	00	%	Ont v	Jiuy
0 - 0.1		0.56D	19B	0.011A	0.07	'2A 0.1	4A	0	52A	34	5	9
0.1 - 0.2		0.28D	10B		0.01			0	45A	36	6	14
0.2 - 0.3		0.33D	7B	0.013A	0.01	9A 0.3	5A	0	45A		6	15
0.3 - 0.6								0	43A		6	22
0.6 - 0.9				0.01A		0.1	9A	0	40A		5	32
0.9 - 1.2				0.0404		0.0	4.0	0	38A	24	-	32
1.2 - 1.5				0.012A	1	0.3	TA	0 0	39A 38A		5 6	31 39
1.5 - 1.8 1.8 - 2.1								1	39A		7	39 27
2.1 - 2.4								1	36A	_	7	28
2.4 - 2.7								1	38A		7	27
2.7 - 3								4	35A	_	10	26
3 - 3.5								2	35A		9	26
3.5 - 4								1	31A		12	31
4 - 4.5								1	28A	26	13	33
4.5 - 5								1	27A	31	13	29
Depth COLE Gravimetric/Volumetric Water Contents K sat K unsat												
Depth	COLE	Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar		Bar	n Sc	a t	K unsat	
m					g - m3/m3		J 10		mm/	/h	mm/h	

0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.6 0.6 - 0.9 0.9 - 1.2 1.2 - 1.5 1.5 - 1.8 1.8 - 2.1

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2.1 - 2.4 2.4 - 2.7 2.7 - 3 3 - 3.5 3.5 - 4 4 - 4.5 4.5 - 5

**Project Name:** Regional

**Project Code:** REG T338 Observation ID: 1 Site ID:

**CSIRO Division of Soils (QLD) Agency Name:** 

## **Laboratory Analyses Completed for this profile**

10A1 Total sulfur - X-ray fluorescence

Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon 13C1\_FE

15A2\_CEC Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts

15E1\_CA Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts 15E1\_K 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

Effective CEC 15J1

17A1 Total potassium - X-ray fluorescence

2A1 Air-dry moisture content 3A1 EC of 1:5 soil/water extract pH of 1:5 soil/water suspension 4A1

6A1\_UC Organic carbon (%) - Uncorrected Walkley and Black method 7A2 Total nitrogen - semimicro Kjeldahl, automated colour

9A1

Total phosphorus - X-ray fluorescence Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES) 9G\_BSES

P10\_CF\_C Clay (%) - Coventry and Fett pipette method

P10\_CF\_CS P10\_CF\_FS P10\_CF\_Z Coarse sand (%) - Coventry and Fett pipette method Fine sand (%) - Coventry and Fett pipette method Silt (%) - Coventry and Fett pipette method

P10\_GRAV Gravel (%)