**Project Name: EAR** 

**Project Code:** T344 Observation ID: 1 **EAR** Site ID:

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

Site Information

R.J. Coventry Locality:

Desc. By: Date Desc.: Elevation: 19/09/74 No Data Map Ref.: Sheet No.: 7956 1:100000 Rainfall: 500 Northing/Long.: 145.1833333333333 Runoff: No Data -20.730555555556 Drainage: No Data Easting/Lat.:

Geology

ExposureType: Conf. Sub. is Parent. Mat.: Auger boring No Data

**Substrate Material:** Geol. Ref.: Auger boring, 1.7 m deep, Sandstone 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 0 % Aspect: Slope:

Surface Soil Condition (dry): N/A

**Erosion:** 

**Soil Classification** 

**Australian Soil Classification:** N/A Mapping Unit: Bleached-Ferric Magnesic Brown Kandosol Principal Profile Form: Gn2.21 **ASC Confidence: Great Soil Group:** Yellow earth

All necessary analytical data are available.

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

Low Strata - Hummock grass, 0.26-0.5m, Very sparse. \*Species includes - Triodia pungens **Vegetation:** 

Mid Strata - Tree, 1.01-3m, Very sparse. \*Species includes - None recorded Tall Strata - Tree, 3.01-6m, Very sparse. \*Species includes - Eucalyptus similis

Surface Coarse Fragments: No surface coarse fragments

**Profile Morphology** 

A1	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); Pale brown (10YR6/3-Dry); , 0-0%; , 0-0%; Loamy sand; Massive grade of structure; Dry; Very weak consistence; 2-10%, medium gravelly, 6-20mm, rounded, Quartz, coarse fragments; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm),
A1	0.1 - 0.15 m	Dark greyish brown (10YR4/2-Moist); Pale brown (10YR6/3-Dry); , 0-0%; , 0-0%; Loamy sand; Massive grade of structure; Dry; Very weak consistence; 2-10%, medium gravelly, 6-20mm, rounded, Quartz, coarse fragments; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm), Nodules; Gradual change to -
А3	0.15 - 0.2 m	Yellowish brown (10YR5/4-Moist); Very pale brown (10YR7/3-Dry); , 0-0%; , 0-0%; Sandy clay loam (Light); Massive grade of structure; Dry; Very weak consistence;
А3	0.2 - 0.3 m	Yellowish brown (10YR5/4-Moist); Very pale brown (10YR7/3-Dry); , 0-0%; , 0-0%; Sandy clay loam (Light); Massive grade of structure; Dry; Very weak consistence; Gradual change to
B1	0.3 - 0.6 m	Light yellowish brown (10YR6/4-Moist); Yellow (10YR7/6-Dry); , 0-0%; , 0-0%; Sandy clay loam (Heavy); Massive grade of structure; Dry; Weak consistence; Many (20 - 50 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Gradual change to -
B2	0.6 - 0.9 m	Yellowish brown (10YR5/4-Moist); , 0-0%; , 0-0%; Sandy light clay; Massive grade of structure; Dry; Weak consistence; Very many (50 - 100 %), Ferruginous, Coarse (6 - 20 mm),
B2	0.9 - 1.1 m	Yellowish brown (10YR5/4-Moist); , 0-0%; , 0-0%; Sandy medium clay; Massive grade of structure; Dry; Very firm consistence; Very many (50 - 100 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Clear change to -
ВС	1.2 - 1.4 m	Dark yellowish brown (10YR3/6-Moist); , 7.5YR56, 20-50% , 0-5mm, Distinct; , 2.5Y64, 20-50% , 0-5mm, Distinct; Sandy medium clay; Massive grade of structure; Dry; Very firm consistence; Many (20 - 50 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Clear change to -
С	1.5 - 1.7 m	Red (2.5YR4/6-Moist); , 2.5Y64, 20-50% , 0-5mm, Faint; , 20-50% , 0-5mm, Faint; Sandy light clay; Massive grade of structure; Dry; Very strong consistence; 20-50%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Nodules;

## **Morphological Notes**

Project Name: EAR
Project Code: EAR Site ID: T34
Agency Name: CSIRO Division of Soils (QLD) T344 Observation ID: 1

<u>Observation Notes</u> POSSIBLY ON HARD SANDSTONE SUBSTRATE AT 170 CM.

Site Notes

Site ID: T344 Observation ID: 1

Project Name: EAR
Project Code: EAR Site ID: T34
Agency Name: CSIRO Division of Soils (QLD)

## **Laboratory Test Results:**

Laboratory Test Nesults.														
Depth	рН	1:5 EC		hangeable Vig	Cations K	Na		angeable cidity	CEC		ECEC	E	SP	
m		dS/m	oug			Cmol (+)/kg						•	%	
0 - 0.1	5.4A	0.26A	0.81H	0.41	0.1	0.02		0.3F	1.49	A	1.6F	1	.34	
0.1 - 0.15	5.5A	0.021A												
0.15 - 0.2	5.3A	0.014A		2.4	0.05	0.00		0.005		•	4-			
0.2 - 0.3	5.4A	0.016A		0.4	0.05	0.02		0.33F	1.17	A	1F	1	.71	
0.3 - 0.6	5A	0.021A												
0.6 - 0.9	5A		<0.02H	1.44	0.06	0.04		0.62F	2.51	A	2.2F	1	.59	
0.9 - 1.2	5.5A	0.022A		4.00	0.05	0.00		0.005	4.04		0.05			
1.2 - 1.5	5.4A	0.019A	<0.02H	1.86	0.05	0.06		0.26F	1.91	4	2.3F	3	3.14	
1.5 - 1.7	5.5A													
Depth	CaCO3	Organic	Avail.	Total	Total	Tot	al	Bulk	Pa	rticle	Size /	Analysis		
•		C	Р	Р	N	K		Density	G۷	cs	FS	Silt	Clay	
m	%	%	mg/kg	%	%	%	•	Mg/m3			%			
0 - 0.1		0.9D	10B	0.001A	0.03	39A 0.	04A		6	52A	38	4	7	
0.1 - 0.15			7B						11	51A	38	2	6	
0.15 - 0.2									10	49A	40	5	7	
0.2 - 0.3		0.34D		0.003A	0.01	18A 0.	04A		11	49A	41	4	6	
0.3 - 0.6									25	46A	34	5	16	
0.6 - 0.9				0.006A	١	0.	05A		62	41A	30	4	25	
0.9 - 1.2									59	43A	27	5	25	
1.2 - 1.5				0.006A	١	0.	05A		43	47A	25	5	24	
1.5 - 1.7									27	43A	28	6	23	
Depth	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 mn										mm/	/h	mm/h		

0 - 0.1 0.1 - 0.15 0.15 - 0.2 0.2 - 0.3 0.3 - 0.6

0.5 - 0.6 0.6 - 0.9 0.9 - 1.2 1.2 - 1.5 1.5 - 1.7

**Project Name: EAR** 

**EAR** Observation ID: 1 **Project Code:** Site ID: T344

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## **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 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

Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES) Exchange Capacity - Minerology 9G BSES

MIN\_EC

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

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

P10\_GRAV Gravel (%)

XRD\_C\_Hm Hematite - X-Ray Diffraction

K2O - X-Ray Diffraction or Clay Fraction (air dry)

XRD\_C\_K2O XRD\_C\_Ka Kaolin - X-Ray Diffraction XRD\_C\_Qz Quartz - X-Ray Diffraction