Project Name: REG

Project Code: REG Site ID: T238 Observation ID: 1

Agency Name: CSIRO Division of Soils (WA)

**Site Information** 

Desc. By: R.F. Isbell Locality: 9KM SW of crossing of Carson River south of

Kalumbaru Mission (Barton Land System):

Date Desc.: 10/09/74 Elevation: 100 metres

**Map Ref.:** Sheet No.: 4269 1:100000 **Rainfall:** 900

Northing/Long.: 126.61666666667 Runoff: Moderately rapid Easting/Lat.: -14.5 Drainage: Imperfectly drained

<u>Geology</u>

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

**Land Form** 

Rel/Slope Class: Gently undulating plains <9m Pattern Type: Alluvial plain

1-3%

Morph. Type: Simple-slope Relief: No Data

Elem. Type: Plain Slope Category: Very gently sloped

Slope: 0 % Aspect: No Data

Surface Soil Condition (dry): Hardsetting

**Erosion:** 

**Soil Classification** 

Australian Soil Classification:Mapping Unit:N/AHaplic Eutrophic Brown KandosolPrincipal Profile Form:Gn3.22ASC Confidence:Great Soil Group:N/A

All necessary analytical data are available.

**<u>Site Disturbance:</u>** No effective disturbance other than grazing by hoofed animals

Vegetation: Low Strata - Tussock grass, 0.51-1m, Mid-dense. \*Species includes - Sorghum plumosum

Tall Strata - Tree, 6.01-12m, Very sparse. \*Species includes - None Recorded

Surface Coarse Fragments: 2-10%, fine gravelly, 2-6mm, subrounded, Other

**Profile Morphology** 

A1	0 - 0.1 m	Brown (10YR4/3-Moist); ; Clay loam; Massive grade of structure; Strong consistence; Gradual change to -
B1	0.1 - 0.2 m	Strong brown (7.5YR4/6-Moist); , 2.5YR58; Light clay; Massive grade of structure; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Strong consistence; Few (2 - 10 %), Ferruginous, Fine (0 - 2 mm), Nodules;
B1	0.2 - 0.3 m	Strong brown (7.5YR4/6-Moist); , 2.5YR58; Light clay; Massive grade of structure; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Strong consistence; Few (2 - 10 %), Ferruginous, Fine (0 - 2 mm), Nodules; Gradual change to -
B21	0.3 - 0.6 m	Strong brown (7.5YR4/6-Moist); , 2.5YR58; Light medium clay; Weak grade of structure, 5-10 mm, Angular blocky; Strong consistence; 2-10%, rounded, Gravel, coarse fragments; Few (2 - 10%), Ferruginous, Fine (0 - 2 mm), Nodules;
B22	0.6 - 0.9 m	Strong brown (7.5YR4/6-Moist); , 2.5YR58, 0-2% , Faint; , 0-2% , Faint; Medium clay; Weak grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Strong consistence; 0-2%, rounded, Gravel, coarse fragments; Few (2 - 10 %), Ferruginous, Fine (0 - 2 mm), Nodules; Gradual change to -
B22	0.9 - 1 m	Strong brown (7.5YR4/6-Moist); , 2.5YR58, 0-2% , Faint; , 0-2% , Faint; Medium clay; Weak grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Strong consistence; 0-2%, rounded, Gravel, coarse fragments; Few (2 - 10 %), Ferruginous, Fine (0 - 2 mm), Nodules;

### **Morphological Notes**

## **Observation Notes**

<10% <2MM FE NODULES ON SURFACE:

### **Site Notes**

NTH KIMBERLY

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# **Laboratory Test Results:**

Depth m	pН	1:5 EC (dS/m		hangeable Vig	Cations K	Exc Na Cmol (+)/k	changeable Acidity	CEC	1	ECEC		ESP %
		40/				· · · · · · · · · · · · · · · · · · ·	3					,,
0 - 0.1	5.9A	<0.05A	3.07B	3.53	0.03	0.11	0.26F			7F		
0.2 - 0.3	5.8A	<0.05A	2.77B	4.13	0.03	0.21						
0.3 - 0.6	6.3A	<0.05A	3.17B	5.16	0.02	0.29						
0.6 - 0.9	6.7A	<0.05A	4.73B	7.39	0.03	0.39						
0.9 - 1												
Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Pa	rticle	Size A	Analysis	i
•		C	Р	Р	N	K	Density	GV	cs	FS	Silt	
m	%	%	mg/kg	%	%	%	Mg/m3			%		-
0 - 0.1		0.85D	3A	0.028A	0.07	2A 0.09A		10	23A	33	13	31
			1.8B									
0.2 - 0.3		0.48D	2A	0.027A	0.05	3A 0.09A		4	13A	27	16	48
			1.8B									
0.3 - 0.6			4.2B	0.022A		0.09A	=	7	16A	23	17	44
0.6 - 0.9				0.019A		0.12A	Ĺ	6	13A	24	24	47
0.9 - 1									12A	26	17	45
Depth	th COLE Gravimetric/Volumetric Water Contents										K unsat	
	<del>-</del>	Sat.	0.05 Bar	0.1 Bar 0.5 Bar		1 Bar 5 Bar 1		5 Bar	K sa			
m					j - m3/m3	3			mm/	h	mm/h	

0 - 0.1 0.2 - 0.3 0.3 - 0.6 0.6 - 0.9 0.9 - 1

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

10A1 Total sulfur - X-ray fluorescence

Total element - Cu(mg/kg) - HF/HClO4 Digest 12\_HF\_CU 12\_HF\_ZN 15A2\_CA Total element - Zn(mg/kg) - HF/HClO4 Digest

Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, pretreatment for

soluble salts

15A2\_K Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts 15A2\_MG 15A2\_NA Exchangeable bases- 1M ammonium chloride at pH 7.0, 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 4A1 pH of 1:5 soil/water suspension

Chloride - 1:5 soil/water extract, automated colour 5A2

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

9A1 Total phosphorus - X-ray fluorescence

Available P (mg/kg) - Bicarbonate P - 0.5M NaHCO3 extractable Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES) 9B\_9C

9G\_BSES

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