Project Name: **Regional**
Project Code: **REG** **Site ID:** **T132** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By: R.F. Isbell
Date Desc.: 15/07/70
Map Ref.: Sheet No. : 7374 1:100000
Northing/Long.: 142.5
Easting/Lat.: -11.7666666666667
Locality: 5.4KM south of Gunshot Creek on detour road:
Elevation: No Data
Rainfall: 1680
Runoff: Moderately rapid
Drainage: Imperfectly drained

Geology

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

Land Form

Rel/Slope Class: Undulating rises 9-30m 3-10%
Morph. Type: Ridge
Elem. Type: Hillslope
Slope: 0 %
Pattern Type: Rises
Relief: 15 metres
Slope Category: Gently inclined
Aspect: No Data

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification:
Bleached-Ferric Dystrophic Yellow Kandosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Gn2.64
Great Soil Group: Yellow earth

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

Vegetation: Low Strata - Sedge, 0.51-1m, Very sparse. *Species includes - Xanthorrhoea johnsonii

Tall Strata - Heath shrub, 1.01-3m, Mid-dense. *Species includes - Grevillea glauca, Acacia species

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); Greyish brown (10YR5/2-Dry); ; Loamy sand; Weak grade of structure, 5-10 mm, Angular blocky; Dry; Firm consistence; Common, fine (1-2mm) roots; Gradual change to -
A12	0.1 - 0.2 m	Dark greyish brown (2.5Y4/2-Moist); Light brownish grey (10YR6/2-Dry); ; Sandy loam; Weak grade of structure, 5-10 mm, Angular blocky; Dry; Firm consistence; Common, medium (2-5mm) roots; Gradual change to -
A21	0.2 - 0.3 m	Yellowish brown (10YR5/4-Moist); Light yellowish brown (2.5Y6/4-Dry); ; Sandy loam; Massive grade of structure; Dry; Very firm consistence; Few, fine (1-2mm) roots;
A22	0.3 - 0.4 m	Brownish yellow (10YR6/6-Moist); Yellow (10YR7/6-Dry); ; Sandy loam; Massive grade of structure; Dry; Very firm consistence; Few
A22	0.4 - 0.5 m	Brownish yellow (10YR6/5-Moist); Yellow (10YR7/6-Dry); ; Sandy loam; Massive grade of structure; Moderately moist; Very weak consistence; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Concretions;
A22	0.5 - 0.6 m	Brownish yellow (10YR6/6-Moist); Yellow (10YR7/6-Dry); ; Sandy loam; Massive grade of structure; Moderately moist; Very weak consistence;
A22	0.6 - 0.75 m	Brownish yellow (10YR6/6-Moist); ; Sandy loam; Massive grade of structure; Moderately moist; Very weak consistence; Clear change to -
B1	0.75 - 0.9 m	Reddish yellow (7.5YR7/8-Moist); , 10YR78; Sandy loam (Heavy); Massive grade of structure; Moderately moist; Very weak consistence;
B21	0.9 - 1.2 m	Reddish yellow (7.5YR7/8-Moist); , 2.5Y76, 10-20% , 5-15mm, Faint; , 2.5YR54, 10-20% , 5-15mm, Faint; Sandy clay loam (Light); Massive grade of structure; Moderately moist; Very weak consistence; Few (2 - 10 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Gradual change to -
B21	1.2 - 1.5 m	Reddish yellow (7.5YR6/7-Moist); , 10YR68, 20-50% , 15-30mm, Distinct; , 10YR88, 20-50% , 15-30mm, Distinct; Sandy clay loam; Massive grade of structure; Moderately moist; Very weak consistence; Few (2 - 10 %), Ferruginous, Coarse (6 - 20 mm), Nodules;

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B22	1.5 - 1.8 m	Brownish yellow (10YR6/6-Moist); , 5YR68, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Sandy clay loam; Massive grade of structure; Moderately moist; Very weak consistence; Many (20 - 50 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Clear change to -
B22	1.8 - 2.1 m	Brownish yellow (10YR6/6-Moist); , 5YR68, 10-20% , 5-15mm, Distinct; , 10R48, 10-20% , 5-15mm, Distinct; Clay loam (Heavy); Massive grade of structure; Moderately moist; Very weak consistence; Many (20 - 50 %), Ferruginous, Coarse (6 - 20 mm), Nodules;
B22	2.1 - 2.4 m	Yellow (10YR7/6-Moist); , 5YR68, 10-20% , 5-15mm, Distinct; , 10R48, 10-20% , 5-15mm, Distinct; Clay loam (Heavy); Massive grade of structure; Moderately moist; Very weak consistence; Many (20 - 50 %), Ferruginous, Coarse (6 - 20 mm), Nodules;
	2.4 - 2.7 m	Yellow (10YR7/6-Moist); , 5YR68, 10-20% , 5-15mm, Distinct; , 10R48, 10-20% , 5-15mm, Distinct; Light clay; Massive grade of structure; Very firm consistence; Many (20 - 50 %), Ferruginous, Very coarse (20 - 60 mm), Nodules;
	2.7 - 3 m	Yellow (10YR7/6-Moist); , 5YR68, 10-20% , 5-15mm, Distinct; , 10R48, 10-20% , 5-15mm, Distinct; Light medium clay; Massive grade of structure; Very firm consistence; Many (20 - 50 %), Ferruginous, Very coarse (20 - 60 mm), Nodules;
C1	3 - 3.3 m	Yellow (10YR7/7-Moist); , 5YR68; , 2.5Y84; Sandy medium clay; Massive grade of structure; Moderately moist; Weak consistence; Many (20 - 50 %), Ferruginous, Very coarse (20 - 60 mm), Nodules;
	3.3 - 3.6 m	Yellow (10YR7/7-Moist); , 5YR68; , 2.5Y84; Sandy medium clay; Massive grade of structure; Very firm consistence; Common (10 - 20 %), Ferruginous, Very coarse (20 - 60 mm), Nodules;
	3.6 - 3.9 m	Brownish yellow (10YR6/8-Moist); , 5YR68; , 2.5Y84; Sandy medium clay; Massive grade of structure; Very firm consistence; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Gradual change to -
	3.9 - 4.2 m	Yellow (10YR7/8-Moist); , 5YR68; , 2.5Y84; Sandy medium clay; Massive grade of structure; Very firm consistence; Very few (0 - 2 %), Ferruginous, , Nodules;
	4.2 - 4.4 m	Yellow (10YR8/8-Moist); , 10YR78; , 2.5Y82; Sandy clay loam (Heavy); Massive grade of structure;
	4.4 - 4.5 m	Yellow (10YR8/8-Moist); , 10YR78; , 2.5Y82; Sandy clay loam; Massive grade of structure;

Morphological Notes

Observation Notes

50-90CM A1 MATERIAL IN ROOT OR ANIMAL CHANNELS:300-330CM POCKETS OF 2.5Y84 ARE SCL:420-440CM SOFT W`D FINE SST:

Site Notes

GUNSHOT CK

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.1	5.4A	0.029A	0.16B	0.11	0.07	0.07	4.6F	1.2C	5F	5.83
0.1 - 0.2	5.4A	0.029A								
0.2 - 0.3	5.4A	0.026A	0.1B	0.1	0.06	0.05	3.2F	1.1C	3.5F	4.55
0.3 - 0.4	5.5A	0.032A								
0.4 - 0.5	5.5A	0.035A								
0.5 - 0.6	5.6A	0.02A	0.02B	0.08	0.07	0.04		0.7C		5.71
0.6 - 0.75	5.4A	0.029A								
0.75 - 0.9	5.5A	0.035A								
0.9 - 1.2	5.5A	0.029A	0.1B	0.37	0.11	0.05	1.1F	0.5C	1.7F	10.00
1.2 - 1.5	5.5A	0.026A								
1.5 - 1.8	5.6A	0.029A								
1.8 - 2.1	5.5A	0.034A	0.1B	0.52	0.14	0.07	1.6F	1.82A 0.4C	2.4F	3.85 17.50
2.1 - 2.4	5.6A	0.032A								
2.4 - 2.7	5.4A	0.032A								
2.7 - 3	5.4A	0.029A								
3 - 3.3	5.2A	0.035A								
3.3 - 3.6	5.4A	0.032A								
3.6 - 3.9	5.5A	0.029A								
3.9 - 4.2	5.4A	0.029A								
4.2 - 4.4	5.3A	0.026A								
4.4 - 4.6	5.3A	0.029A								

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis				
								GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1		1.68D	<2A <2B	0.006A	0.09A	0.03A		<2	9A	80	1	10
0.1 - 0.2												
0.2 - 0.3		0.85D	<2A 2B	0.005A	0.05A	0.03A		<2	9A	77	3	11
0.3 - 0.4												
0.4 - 0.5												
0.5 - 0.6		0.34D	2B	0.005A	0.02A	0.03A		<2	11A	74	3	13
0.6 - 0.75								<2	8A	77	2	13
0.75 - 0.9								2	8A	74	2	16
0.9 - 1.2			<2B	0.007A		0.05A		7	8A	64	2	26
1.2 - 1.5								30	7A	58	1	34
1.5 - 1.8								56	8A	47	4	41
1.8 - 2.1			<2B	0.013A		0.12A						
2.1 - 2.4												
2.4 - 2.7								25	6A	51	5	38
2.7 - 3												
3 - 3.3								48	6A	57	5	32
3.3 - 3.6												
3.6 - 3.9												
3.9 - 4.2												
4.2 - 4.4								0	8A	63	5	24
4.4 - 4.6												

Depth	COLE	Gravimetric/Volumetric Water Contents	K sat	K unsat

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m	Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar		
			g/g -	m3/m3				mm/h	mm/h
0 - 0.1									
0.1 - 0.2									
0.2 - 0.3									
0.3 - 0.4									
0.4 - 0.5									
0.5 - 0.6									
0.6 - 0.75									
0.75 - 0.9									
0.9 - 1.2									
1.2 - 1.5									
1.5 - 1.8									
1.8 - 2.1									
2.1 - 2.4									
2.4 - 2.7									
2.7 - 3									
3 - 3.3									
3.3 - 3.6									
3.6 - 3.9									
3.9 - 4.2									
4.2 - 4.4									
4.4 - 4.6									

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Laboratory Analyses Completed for this profile

10A1	Total sulfur - X-ray fluorescence
12_HF_CU	Total element - Cu(mg/kg) - HF/HClO4 Digest
12_HF_FE	Total element - Fe(%) - HF/HClO4 Digest
12_HF_MN	Total element - Mn(mg/kg) - HF/HClO4 Digest
12_HF_ZN	Total element - Zn(mg/kg) - HF/HClO4 Digest
13C1_AL	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
15A2_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_CEC	Exchangeable bases- 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
15A2_MG	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_NA	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15D1_CEC	CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
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
2A1	Air-dry moisture content
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
9B_9C	Available P (mg/kg) - Bicarbonate P - 0.5M NaHCO3 extractable
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H2SO4 (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_Gt	Geothite - X-Ray Diffraction
XRD_C_Is	Interstratified clay minerals - 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