Project Name: IDF
Project Code: IDF **Site ID:** T472 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: M.G. Cannon
Date Desc.: 05/11/86
Map Ref.: Sheet No. : 8061 1:100000
Northing/Long.: 145.866666666667
Easting/Lat.: -18.1166666666667
Locality: SHELL PROJECT: UPPER MURRAY SITE:
Elevation: No Data
Rainfall: 2300
Runoff: Slow
Drainage: Well drained

Geology

ExposureType: Undisturbed soil core
Geol. Ref.: Qa
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Unconsolidated material (unidentified)

Land Form

Rel/Slope Class: Gently undulating plains <9m 1-3%
Morph. Type: No Data
Elem. Type: Fan
Slope: <3 %
Pattern Type: Alluvial fan
Relief: No Data
Slope Category: Very gently sloped
Aspect: 90 degrees

Surface Soil Condition (dry): Hardsetting, Loose

Erosion:

Soil Classification

Australian Soil Classification:
Melanic Mesotrophic Red Kandosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Gn2.11
Great Soil Group: Red earth

Site Disturbance: Complete clearing. Pasture, native or improved, but never cultivated

Vegetation:

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A	0 - 0.07 m	Black (10YR2/1-Moist); ; Coarse sandy loam; Massive grade of structure; Earthy fabric; Moist; Very weak consistence; Abundant, very fine (0-1mm) roots; Gradual, Wavy change to -
AB	0.07 - 0.23 m	Very dark greyish brown (10YR3/2-Moist); ; Sandy clay loam; Weak grade of structure, 2-5 mm, Subangular blocky; Massive grade of structure; Earthy fabric; Moist; Weak consistence; Common, very fine (0-1mm) roots; Diffuse change to -
B2	0.23 - 0.48 m	Red (2.5YR4/8-Moist); ; Clay loam, sandy; Weak grade of structure, 2-5 mm, Subangular blocky; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, subangular, dispersed, Granite, coarse fragments; Common, very fine (0-1mm) roots; Diffuse change to -
BC	0.48 - 0.82 m	Red (2.5YR4/6-Moist); ; Clay loam, sandy; Weak grade of structure, 2-5 mm, Subangular blocky; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subangular, dispersed, Granite, coarse fragments; Few, very fine (0-1mm) roots; Clear, Wavy change to -
D	0.82 - 0.95 m	Red (2.5YR4/8-Moist); ; Clayey coarse sand; Single grain grade of structure; Sandy (grains prominent) fabric; Moist; Loose consistence; 50-90%, medium gravelly, 6-20mm, subangular, dispersed, Granite, coarse fragments;
	0.95 - 1.05 m	;

Morphological Notes

Observation Notes

OME GRANITE GV TO 40MM IN 48-82CM: LARGE GRAVEL STOPPED PROLINE: CHARCOAL OCCURS THROUGH 23-82CM: LARGE ROOT 40MM AT 70C

Site Notes

UPPER MURRAY

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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 - 0.07	6A	0.06A	5.58H	1.89	0.37	0.14		4.5A	8F	3.11
	6A	0.05A						10C		1.40
0.07 - 0.23	6.2A	0.03A	3.94H	1.54	0.32	0.05		5.1A	5.9F	0.98
								7C		0.71
0.23 - 0.48	6A	0.02A								
0.48 - 0.82	5.7A	0.01A	0.73H	1.53	0.1	0.02		3.7A	2.4F	0.54
								3C		0.67
0.82 - 0.95	6A	0.01A								
0.95 - 1.05										

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 - 0.07		3.34C	5A		0.07A			6	51A	22	12	16
			7B									
0.07 - 0.23		1.95C	3A		0.05A			7	44A	25	13	19
			3B									
0.23 - 0.48		0.72C										
0.48 - 0.82		0.23C	3A		<0.01A			33	50A	21	9	21
			3B									
0.82 - 0.95								22	74A	11	4	10
0.95 - 1.05			2A					17	40A	26	9	24
			<2B									

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						mm/h	mm/h
0 - 0.07									
0.07 - 0.23									
0.23 - 0.48									
0.48 - 0.82									
0.82 - 0.95									
0.95 - 1.05									

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Laboratory Analyses Completed for this profile

15A2_CEC	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
15E1_CA	Exchangeable bases (Ca2+,Mg2+,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
15J1	Effective CEC
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5_C_B	Water soluble Chloride - Method recorded as B
6B3	Total organic carbon - high frequency induction furnace, infrared
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9B_9C	Available P (mg/kg) - Bicarbonate P - 0.5M NaHCO3 extractable
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H2SO4 (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 (%)