

Project Name: Geraldton land resources survey
Project Code: GTN **Site ID:** 1406 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Rogers, Gary	Locality:	
Date Desc.:	15/02/91	Elevation:	No Data
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6899054 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	299214 Datum: AGD84	Drainage:	Well drained

Geology

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

Land Form

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

Surface Soil Condition Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Sodic Petrocalcic Red Kandosol		Principal Profile Form:	N/A
ASC Confidence:		Great Soil Group:	N/A
Confidence level not specified			

Site Cultivation. Rainfed

Vegetation:

Surface Coarse

Profile

A11	0 - 0.1 m	Dusky red (10R3/4-Moist); ; Sandy loam; Massive grade of structure; Sandy (grains prominent) fabric;
		Dry; Field pH 6 (pH meter); Abrupt change to -
A12	0.1 - 0.2 m	Dark red (10R3/6-Moist); ; Sandy clay loam; Massive grade of structure; Sandy (grains prominent) fabric; Dry; Strong consistence; Field pH 6 (pH meter); Clear change to -
B21	0.2 - 0.4 m	Dark red (10R3/6-Moist); ; Sandy clay loam; Massive grade of structure; Sandy (grains prominent) fabric; Dry; Strong consistence; Field pH 7.2 (pH meter); Gradual change to -
B22	0.4 - 0.75 m	Dark red (10R3/6-Moist); ; Sandy clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Field pH 7.7 (pH meter); Gradual change to -
B23	0.75 - 1.05 m	Dark red (2.5YR3/6-Moist); ; Sandy clay loam; Massive grade of structure; Earthy fabric; Dry; Field pH 6.5 (pH meter); Gradual change to -
B24	1.05 - 1.35 m	Dark red (2.5YR3/6-Moist); ; Sandy light clay; Massive grade of structure; Earthy fabric; Moderately moist; Field pH 6.5 (pH meter); Gradual change to -
B25	1.35 - 1.63 m	Red (2.5YR4/6-Moist); ; Sandy light clay; Massive grade of structure; Earthy fabric; Moderately moist; 2-10%, fine gravelly, 2-6mm, angular, Calcarenite, coarse fragments; Field pH 8 (pH meter);

Morphological Notes

A11	MKSL
B25	slight calcareous reaction, rock very highly calcareous

Observation Notes

Site Notes

Red earth over calcrete, calcrete ridges in paddock calcrete at 163cm depth Bulk 0-10cm 10r 3/4 pH6.0

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.1	5.7B 6.4H 5.8B 6.6H	13B 12B	2.05H 1.94H	0.61 0.5	0.76 0.76	0.13 0.1	<0.02J 0.02J		3.55D 3.3D	
0 - 0.1	5.7B 6.4H 5.8B 6.6H	13B 12B	2.05H 1.94H	0.61 0.5	0.76 0.76	0.13 0.1	<0.02J 0.02J		3.55D 3.3D	
0.1 - 0.2	5.1B 6.2H	3B	2.15H	0.5	0.396	0.14	0.03J		3.186D	
0.2 - 0.4	6.6B 7.5H	4B	3.06A	0.72	0.3	0.22			4.3D	
0.4 - 0.75	6.8B 7.5H	4B	2.73A	1.3	0.09	0.26			4.38D	
0.75 - 1.05	6.4B 7.1H	4B	2.12A	1.85	0.06	0.47			4.5D	
1.05 - 1.35	5.8B 7.2H	6B	3.5A	2.94	0.11	1.03			7.58D	
1.35 - 1.63	8B 8.8H	25B	7.25E	4.2	0.22	1.64		17B	13.31D	9.65

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size	Analysis
m	%	Clay %	mg/kg	%	%	%	Mg/m3	GV CS FS	Silt
0 - 0.1		0.67D							2.3
6.8		0.55D							2.6
		6.8							
0 - 0.1		0.67D							2.3
6.8		0.55D							2.6
		6.8							
0.1 - 0.2		0.43D							2.9
13.9									
0.2 - 0.4		0.21D							3.5
16.6									
0.4 - 0.75		0.11D							3
16.6									
0.75 - 1.05		0.08D							3.2
17.5									
1.05 - 1.35		0.08D							3.5
24.4									
1.35 - 1.63	3C	0.11D							8.5
23.9									

Laboratory Analyses Completed for this profile

15_NR_BSa Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
 15_NR_CMV Exchangeable bases (Ca/Mg ratio) - Not recorded
 15A1_CA Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
 15A1_CEC Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
 15A1_K Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
 15A1_MG Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts

15A1_NA for soluble	salts Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment
15C1_CA pretreatment for	salts Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - alcoholic 1M ammonium chloride at pH 8.5,
15C1_CEC	soluble salts CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts

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15C1_K soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_MG soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_NA soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA salts	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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_MN	Exchangeable bases (Mn ²⁺) by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15J_BASES	Sum of Bases
15L1_a Sum of Cations	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using and measured clay
15N1_a	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC
15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
18A1_NR	Bicarbonate-extractable potassium (not recorded)
19B_NR	Calcium Carbonate (CaCO ₃) - Not recorded
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
4B_AL_NR	Aluminium in 1:5 soil/0.01M calcium chloride extract - method not recorded
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
9B_NR	Bicarbonate-extractable phosphorus (not recorded)
9H1	Anion storage capacity
P10_1m2m	1000 to 2000u particle size analysis, (method not recorded)
P10_20_75	20 to 75u particle size analysis, (method not recorded)
P10_75_106	75 to 106u particle size analysis, (method not recorded)
P10_NR_C	Clay (%) - Not recorded
P10_NR_Saa	Sand (%) - Not recorded arithmetic difference, auto generated
P10_NR_Z	Silt (%) - Not recorded
P10106_150	106 to 150u particle size analysis, (method not recorded)
P10150_180	150 to 180u particle size analysis, (method not recorded)
P10180_300	180 to 300u particle size analysis, (method not recorded)
P10300_600	300 to 600u particle size analysis, (method not recorded)
P106001000	600 to 1000u particle size analysis, (method not recorded)