

Project Name: Three Springs Latham land resources survey
Project Code: TSL **Site ID:** 0321 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Cameron Weeks	Locality:	
Date Desc.:	09/08/93	Elevation:	No Data
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6731942 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	447777 Datum: AGD84	Drainage:	Well drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	No Data	Substrate Material:	No Data

Landform

Rel/Slope Class: Gently undulating rises 9-30m 1-3% **Pattern Type:** Hills

Morph. Type:	Crest	Relief:	No Data
Elem. Type:	Hillcrest	Slope Category:	No Data
Slope:	1 %	Aspect:	No Data

Surface Soil Condition Hardsetting, Hardsetting

Erosion

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Haplic Eutrophic Brown Kandosol		Principal Profile Form:	Gn4.31
ASC Confidence:		Great Soil Group:	N/A
Confidence level not specified			

Site Disturbance Cultivation. Rainfed

Vegetation

Surface Coarse Fragments

Profile Morphology

Ap	0 - 0.12 m	Brown (10YR4/3-Moist); ; Sandy clay loam; Moderate grade of structure, 20-50 mm, Subangular blocky;
		Moist; Weak consistence; Soil matrix is Slightly calcareous; Field pH 7.2 (pH meter);
		Clear, Wavy
		change to -
B1	0.12 - 0.43 m	Brown (7.5YR4/4-Moist); , 10YR43, 20-50% , 5-15mm, Faint; Sandy light clay; Weak grade of structure,
		10-20 mm, Subangular blocky; Moist; Very firm consistence; 10-20%, Quartz, coarse fragments; Silcrete,
		Weakly cemented; Field pH 7.2 (pH meter); Gradual, Wavy change to -
B2	0.43 - 0.6 m	Brown (7.5YR4/4-Moist); Mottles, 10YR53, 10-20% , 5-15mm, Distinct; Sandy light clay;
		Weak grade of structure, 10-20 mm, Angular blocky; Moist; Firm consistence; Field pH 6.3 (pH meter);
		Clear, Irregular
		change to -
R	0.6 - m	Rock

Morphological Notes

Ap	Common fine roots.
B1	Texture variable depending on amount of quartz grains. Layer appears to be weakly cemented.
	Common fine roots.
B2	Large roots from previous vegetation extend into this layer. More coarse material than layer 2.

Observation Notes

Site Notes

Remnants of old tree roots in 2nd and 3rd layers.

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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	6.3B 7.2H	12B	4.39A	1.73	0.78	0.61			7.51D	
0.25 - 0.35	6B 6.7H	34B	2.99A	3.44	0.6	1.04			8.07D	
0.5 - 0.6	5.6B 6.2H	51B	3.68H	4.22	0.57	1.48	0.02J		9.95D	

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		1.1D		230B	0.068E			7.5
20.1								
0.25 - 0.35		0.61D		82B	0.039E			4.4
43.2								
0.5 - 0.6		0.65D		90B	0.044E			3.5
53.6								

Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMJR	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	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
salts	
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 (Mn2+) 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	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using
Sum of Cations	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
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
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
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

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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)