

Project Name: Three Springs Latham land resources survey
Project Code: TSL **Site ID:** 0329 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Christopher Grose	Locality:	
Date Desc.:	10/08/93	Elevation:	300 metres
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6719252 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	404755 Datum: AGD84	Drainage:	Moderately 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:	Lower-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	3 %	Aspect:	No Data

Surface Soil Condition Firm, Hardsetting

Erosion

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Haplic Hypocalcic Grey Chromosol		Principal Profile Form:	Dy5.13
ASC Confidence:		Great Soil Group:	N/A
Confidence level not specified			

Site Disturbance Cultivation. Rainfed

Vegetation

Surface Coarse Fragments

Profile Morphology

Ap	0 - 0.2 m	Dark brown (7.5YR3/3-Moist); ; Loamy coarse sand; Moist; Very weak consistence; Field pH 4.7 (pH meter);
A3	0.2 - 0.35 m	Reddish brown (5YR4/4-Moist); ; Coarse sandy loam; Weak grade of structure, 5-10 mm, Angular blocky; Moderately moist; Weak consistence; Field pH 6.7 (pH meter);
2B21	0.35 - 0.6 m	Pinkish grey (7.5YR6/2-Moist); Mottles, 5YR56, 10-20% , 0-5mm, Distinct; Coarse sandy light clay; Moderate grade of structure; Dry; 20-50%, Quartz, coarse fragments; Ferricrete, Moderately cemented, Massive; Field pH 7 (pH meter);
2B22	0.6 - 1.05 m	Pinkish grey (7.5YR6/3-Moist); Mottles, 7.5YR54, 10-20% , 0-5mm, Distinct; Coarse sandy clay loam; Weak grade of structure, 20-50 mm, Angular blocky; Moderately moist; Very firm consistence; 20-50%, Quartz, coarse fragments; Soil matrix is Slightly calcareous; Field pH 8.5 (pH meter);
R	1.05 - m	Rock

Morphological Notes

R Rock is Kaolinised granite. White in colour.

Observation Notes

Site Notes

Main roots go down to bottom of second but some into third.

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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	4.3B 5.2H	4B	1.44H	0.34	0.24	0.03	0.28J		2.05D	
0.15 - 0.25	5.7B 6.7H 5.7B	3B	2.64A 2.64A	0.9 0.9	0.21 0.21	0.15 0.15			3.9D 3.9D	
0.15 - 0.25	6.7H 5.7B 6.7H 5.7B	3B	2.64A 2.64A	0.9 0.9	0.21 0.21	0.15 0.15			3.9D 3.9D	
0.35 - 0.45	6.4B 7.6H	18B	2.7A	3.21	0.31	1.46			7.68D	
0.65 - 0.75	7.8B 8.5H	97B	2.62E	10.62	1.25	6.62		26B	21.11D	25.46

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis
m	%	%	mg/kg	%	%	%	Mg/m3	GV CS FS Silt
0 - 0.1		0.63D		150B	0.04E			
5.8								
0.15 - 0.25		0.34D		91B	0.022E			7.1
9.5								
		0.34D		91B	0.022E			7.1
		9.5						
0.15 - 0.25		0.34D		91B	0.022E			7.1
9.5								
		0.34D		91B	0.022E			7.1
		9.5						
0.35 - 0.45		0.22D		54B	0.017E			6.7
20.5								
0.65 - 0.75	<2C	0.1D		41B	0.014E			2.8
53.1								

Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMR	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
15C1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5,
pretreatment for	soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for

soluble salts

15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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

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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
19B_NR	Calcium Carbonate (CaCO3) - 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
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
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)