Project Name: **Three Springs Latham land resources survey**
Project Code: **TSL** **Site ID:** **0002** **Observation ID:** **1**
Agency Name: **Agriculture Western Australia**

Site Information

Desc. By: Christopher Grose
Date Desc.: 30/03/93
Map Ref.:
Northing/Long.: 6748854 AMG zone: 50
Easting/Lat.: 377758 Datum: AGD84
Locality:
Elevation: 265 metres
Rainfall: No Data
Runoff: No Data
Drainage: Moderately well drained

Geology

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

Landform

Rel/Slope Class: Undulating plains <9m 3-10%
Morph. Type: No Data
Elem. Type: Plain
Slope: %
Pattern Type: Plain
Relief: No Data
Slope Category: No Data
Aspect: No Data

Surface Soil Condition

Cracking

Erosion

Soil Classification

Australian Soil Classification:
Vertic Mesonatric Brown Sodosol
ASC Confidence:
Analytical data are incomplete but reasonable confidence.
Mapping Unit: N/A
Principal Profile Form: Db3.13
Great Soil Group: N/A

Site Disturbance

Cultivation. Rainfed

Vegetation

Surface Coarse Fragments

0-2%, medium gravelly, 6-20mm, subrounded,

Profile Morphology

A1 0 - 0.14 m Brown (7.5YR4/3-Moist); ; Clay loam; Strong grade of structure, 50-100 mm, Angular blocky; Very firm consistence; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Field pH 9 (pH meter);

B11 0.14 - 0.23 m Brown (10YR4/3-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Polyhedral; Weak consistence; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Field pH 9 (pH meter);

B12 0.23 - 0.39 m Brown (10YR4/3-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Polyhedral; Weak consistence; Few (2 - 10 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Soil matrix is Slightly calcareous; Field pH 9 (pH meter);

B21 0.39 - 0.63 m Dark yellowish brown (10YR4/4-Moist); ; Medium heavy clay; Strong grade of structure, 20-50 mm, Polyhedral; Firm consistence; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Soil matrix is Highly calcareous; Field pH 9 (pH meter);

B22 0.63 - 1.1 m Dark yellowish brown (10YR4/4-Moist); ; Medium heavy clay; Strong grade of structure, 20-50 mm, Polyhedral; Very firm consistence; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Soil matrix is Highly calcareous; Field pH 9.5 (pH meter);

1.1 - m ; Medium heavy clay;

Morphological Notes

A1 Common fine pores
B11 Common fine pores
B12 Common fine particles.
B21 Few fine particles
B22 Few fine particles. Soft powdery lime accumulation in last two layers.

Observation Notes

Site Notes

Micro relief - Strong well developed gilgai. Pit is half way down a gilgai. Cracks on surface to 10mm wide.

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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 - 0.14	8B 8.7H	15B	15.1E	2.76	2.44	0.32		22B	20.62D	1.45
0.14 - 0.23	8B 8.9H	10B	13.22E	3.22	1.53	0.42		20B	18.39D	2.10
0.23 - 0.39	8.2B 9.2H	13B	10.58E	4.44	1.2	1.09		18B	17.31D	6.06
0.39 - 0.63	8.4B 9.8H	29B	7.05E	7.73	0.96	3.74		20B	19.48D	18.70
0.63 - 1.1	8.5B 10H	50B	4.21E	8.4	1.07	11		25B	24.68D	44.00

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis			
		Clay						GV	CS	FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.14	4C	1.06D		210B	0.104E						17.3
25.3											
0.14 - 0.23	2C	0.46D		160B	0.044E						10
30.1											
0.23 - 0.39	2C	0.33D		170B	0.033E						8.3
29.3											
0.39 - 0.63	16C	0.21D		100B	0.024E						9.1
37											
0.63 - 1.1		0.16D		93B	0.02E						10.2
45.2											

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
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
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
18A1_NR	Bicarbonate-extractable potassium (not recorded)
19B_NR	Calcium Carbonate (CaCO3) - Not recorded
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - 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
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

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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)