

**Project Name:** Moora Wongan Hills land resources survey  
**Project Code:** MRA **Site ID:** 0513 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

**Desc. By:** Mir Frahmmand  
**Date Desc.:** 24/03/97  
**Map Ref.:**  
**Northing/Long.:** 6681923 AMG zone: 50  
**Easting/Lat.:** 440640 Datum: AGD84  
**Locality:**  
**Elevation:** No Data  
**Rainfall:** No Data  
**Runoff:** No Data  
**Drainage:** No Data

#### Geology

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

#### Landform

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

**Morph. Type:** Lower-slope  
**Elem. Type:** No Data  
**Slope:** 3 %  
**Relief:** No Data  
**Slope Category:** No Data  
**Aspect:** 270 degrees

#### Surface Soil Condition

#### Erosion

#### Soil Classification

**Australian Soil Classification:**  
 Haplic Mesotrophic Yellow Kandosol  
**ASC Confidence:**  
 Confidence level not specified  
**Mapping Unit:** N/A  
**Principal Profile Form:** N/A  
**Great Soil Group:** N/A

#### Site Disturbance

#### Vegetation

#### Surface Coarse Fragments

#### Profile Morphology

A1 0 - 0.2 m Yellowish brown (10YR5/4-Moist); ; Loamy sand; Massive grade of structure; Sandy (grains prominent)  
 fabric; Dry; Field pH 6.9 (pH meter); Clear change to -  
 B1 0.2 - 0.6 m Yellow (10YR7/8-Moist); ; Sandy loam; Massive grade of structure; Earthy fabric; Dry; Field pH 6.7 (pH meter); Diffuse change to -  
 B2 0.6 - 0.9 m Yellow (10YR7/8-Moist); ; Sandy loam; Massive grade of structure; Earthy fabric; Dry; Field pH 6.3 (pH meter); Gradual change to -  
 B21 0.9 - 1.6 m Yellow (10YR7/8-Moist); ; Sandy loam; Massive grade of structure; Earthy fabric; Dry; Field pH 6.5 (pH meter); Diffuse change to -  
 B22 1.6 - 2 m Yellow (10YR7/8-Moist); ; Sandy loam; Massive grade of structure; Earthy fabric; Moist;

#### Morphological Notes

A1 m-k  
 B1 f-m  
 B2 f-m  
 B21 f-m  
 B22 f-m

#### Observation Notes

#### Site Notes

Yellow sandy earth

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#### Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Cations	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m		Mg K	Cmol (+)/kg				%

0 - 0.2	5B 5.9H	5B	0.93H	0.25	0.06	<0.02	0.03J	1.25D
0.2 - 0.6	5.5B 6.4H	1B	0.73H	0.19	0.02	0.02		0.96D
0.6 - 0.9	6B 6.8H	1B	0.69A	0.29	<0.02	<0.02		1D
0.9 - 1.6	5.8B 6.5H	1B	0.53H	0.38	<0.02	<0.02		0.93D
1.6 - 2	6B 6.5H	2B	0.58A	0.45	<0.02	<0.02		1.05D

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 - 0.2		0.42D		110B	0.034E			2.5
5.6								
0.2 - 0.6		0.1D						3.7
11.8								
0.6 - 0.9		0.09D						4
12.5								
0.9 - 1.6		0.07D						4.7
13.8								
1.6 - 2		0.06D						4.5
13.5								

#### Laboratory Analyses Completed for this profile

15_NR_AL	Aluminium Cation - meq per 100g of soil - Not recorded
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
15_NR_K	Exch. basic cations (K++) - meq per 100g of soil - Not recorded
15_NR_MN	Exchangeable bases (Mn++) - meq per 100g of soil - Not recorded
15_NR_NA	Exch. basic cations (Na++) - meq per 100g of soil - 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_MG	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_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
18A1_NR	Bicarbonate-extractable potassium (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

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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)