

**Project Name:** Jerramungup soils inventory (=JER LRS)  
**Project Code:** JSI **Site ID:** 1160 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b>	Tim Overheu	<b>Locality:</b>	
<b>Date Desc.:</b>	28/11/94	<b>Elevation:</b>	255 metres
<b>Map Ref.:</b>		<b>Rainfall:</b>	385
<b>Northing/Long.:</b>	6257562 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	672897 Datum: AGD84	<b>Drainage:</b>	Imperfectly drained

#### Geology

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

#### Land Form

**Rel/Slope Class:** Gently undulating plains <9m 1-3% **Pattern Type:** Plain

<b>Morph. Type:</b>	Simple-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Plain	<b>Slope Category:</b>	No Data
<b>Slope:</b>	%	<b>Aspect:</b>	No Data

#### Surface Soil Condition Firm, Hardsetting

**Erosion:** (wind); (scald) (sheet) (rill) (mass) (gully)  
(stbank) (tunnel)

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Eutrophic Mottled-Hypernatric Yellow Sodosol		<b>Principal Profile Form:</b>	Dy3.11
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	N/A
All necessary analytical data are available.			

**Site** Cultivation. Rainfed

#### Vegetation:

**Surface Coarse** 10-20%, medium gravelly, 6-20mm, angular, Quartz; No surface coarse fragments

#### Profile

Ap	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); , 0-0% ; Sandy loam; Single grain grade of structure; Sandy subangular, Quartz, coarse fragments; Field pH 6 (pH meter); Abrupt change to -
B21	0.1 - 0.4 m	Light yellowish brown (2.5Y6/4-Moist); Mottles, 10YR68, 0-2% , 0-5mm, Faint; Light medium clay; Moderate grade of structure, 2-5 mm, Polyhedral; Rough-ped fabric; Dry; Very firm consistence; 0-2%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 7.2 (pH meter); Clear change to -
B22	0.4 - 0.6 m	Light yellowish brown (2.5Y6/4-Moist); Mottles, 2.5YR48, 10-20% , 0-5mm, Prominent; Medium clay; Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Field pH 7.5 (pH meter); Clear change to -
C	0.6 - 1 m	Light grey (10YR7/2-Moist); Mottles, 2.5YR48, 20-50% , 5-15mm, Prominent; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Field pH 7.7 (pH meter); Abrupt change to -
D	1 - 1.3 m	Pinkish grey (5YR7/2-Moist); , 5YR58, 20-50% , 5-15mm, Prominent; Moderately moist; Firm consistence; 2-10%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; Field pH 7.3 (pH meter);

#### Morphological Notes

C ALSO MOTTLES CFP 2.5Y 8/2 R  
 D ALSO MOTTLES CMP 2.5YR 5/6.

#### Observation Notes

**Site Notes**

Soil more orange than expected

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**Laboratory Test Results:**

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.1	5.2B 5.6H	78B	3.4H	3	0.05	0.97	0.06J		7.42D	
0.1 - 0.4	7.9B 8.5H	140B	1.6E	6	0.74	3.8		14B	12.14D	27.14
0.4 - 0.6	7.8B 8.4H	160B	1.1E	5.8	0.83	4.7		14B	12.43D	33.57
0.6 - 1	7.3B 7.8H	200B	0.55A	5.4	0.57	4.6			11.12D	
1 - 1.3	6B 6.2H	330B	0.34H	4.8	0.31	2.7	<0.02J	7E	8.15D	38.57

Depth m	CaCO3 %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle GV CS	Size FS	Analysis Silt %
0 - 0.1 11.7		1.34D		110B	0.067E	0.5A				3.7
0.1 - 0.4 51.8	<2C	0.12D		26B	0.012E	0.48A				3.3
0.4 - 0.6 58.2	<2C	0.09D		22B	0.007E	0.4A				5.8
0.6 - 1 53	<2C	0.08D		20B	0.006E	0.29A				11.8
1 - 1.3 51.8		0.1D		19B	<0.005E	0.04A				13.1

**Laboratory Analyses Completed for this profile**

12C1	Calcium chloride extractable boron - manual colour
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 for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_CEC	salts
15A1_K for soluble	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_MG for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_NA for soluble	salts
15C1_CA pretreatment for	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15C1_CEC	salts
15C1_K soluble salts	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5,
15C1_MG soluble salts	soluble salts
15C1_NA soluble salts	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15E1_AL	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15E1_CA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble

salts

15E1_CEC	CEC 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

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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
17A1	Total Potassium - X-ray fluorescence
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)