

Project Name: Jerramungup soils inventory (=JER LRS)
Project Code: JSI **Site ID:** 1064 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

| | | | |
|------------------------|----------------------|-------------------|---------------------|
| Desc. By: | Tim Overheu | Locality: | |
| Date Desc.: | 28/09/94 | Elevation: | 334 metres |
| Map Ref.: | | Rainfall: | 340 |
| Northing/Long.: | 6334007 AMG zone: 50 | Runoff: | No Data |
| Easting/Lat.: | 751389 Datum: AGD84 | Drainage: | Imperfectly drained |

Geology

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

Land Form

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

| | | | |
|---------------------|--------------|------------------------|----------|
| Morph. Type: | Simple-slope | Relief: | 5 metres |
| Elem. Type: | Plain | Slope Category: | No Data |
| Slope: | 2 % | Aspect: | No Data |

Surface Soil Condition Hardsetting, Hardsetting

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

Soil Classification

| | | | |
|--|--|--------------------------------|--------|
| Australian Soil Classification: | | Mapping Unit: | N/A |
| N/A | | Principal Profile Form: | Gc1.11 |
| ASC Confidence: | | Great Soil Group: | N/A |
| Confidence level not specified | | | |

Site Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation:

Surface Coarse 0-2%, medium gravelly, 6-20mm, subangular, Silcrete; 0-2%, , subangular, Silcrete

Profile

| | |
|--|--|
| Ap 0 - 0.1 m Moderate grade medium (0 - 2 mm), - | Strong brown (7.5YR4/6-Moist); Mottles, 2.5Y48, 2-10% , 5-15mm, Distinct; Clay loam; of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Dry; Very firm consistence; 10-20%, gravelly, 6-20mm, rounded, Gravel, coarse fragments; Few (2 - 10 %), Calcareous, Fine Concretions; Soil matrix is Moderately calcareous; Field pH 9 (pH meter); Clear change to - |
| B21 0.1 - 0.5 m 0-5mm, Faint; Dry; Very firm 10 %), pH 9.1 (pH | Red (2.5YR4/8-Moist); Mottles, 2.5Y44, 2-10% , 0-5mm, Faint; Mottles, 5YR68, 2-10% , Light medium clay; Strong grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; consistence; 0-2%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Few (2 - 10 %), Calcareous, Medium (2 - 6 mm), Concretions; Soil matrix is Moderately calcareous; Field (pH meter); Gradual change to - |
| B22 0.5 - 0.9 m Polyhedral; Rough- subangular, Gradual change | Red (2.5YR4/8-Moist); ; Light medium clay; Strong grade of structure, 10-20 mm, ped fabric; Moderately moist; Very firm consistence; 2-10%, medium gravelly, 6-20mm, Gypsum, coarse fragments; Soil matrix is Slightly calcareous; Field pH 8.6 (pH meter); to - |
| B23 0.9 - 1.3 m structure, 5-10 gravelly, 2-6mm, | Red (2.5YR4/6-Moist); , 7.5YR76, 2-mm, Polyhedral; Rough-ped fabric; Moderately moist; Strong consistence; 0-2%, fine angular, Quartz, coarse fragments; Field pH 7 (pH meter); |

Morphological Notes

Observation Notes

Site Notes

Gently undulating country side - terraced site almost like a valley floor; a transitional soil? Loamy sand over white sand over a mottled calcareous clay over a yellow clay with soft lime. Sand seams go to 40cm; top of clay = 35cm.

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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 | 8.1B 8.6H | 98B | 9.7E | 5 | 0.66 | 2.6 | | 17J | 17.96D | 15.29 |
| 0.1 - 0.5 | 8.3B 8.9H | 140B | 8.8E | 6.9 | 0.73 | 6.6 | | 22J | 23.03D | 30.00 |
| 0.5 - 0.9 | 7.6B 7.8H | 320B | 24A | 9 | 0.76 | 7.8 | | 19J | 41.56D | 41.05 |
| 0.9 - 1.3 | 4.5B 4.9H | 230B | 2H | 8.6 | 0.5 | 8.2 | 0.3J | | 19.3D | |

| 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 | 4C | 1.18D | | 130B | 0.092E | | | 7.5 |
| 0.1 - 0.5 | 4C | 0.39D | | 34B | 0.028E | | | 7.3 |
| 0.5 - 0.9 | | 0.1D | | 24B | 0.009E | | | 5.3 |
| 0.9 - 1.3 | | 0.19D | | 29B | 0.013E | | | 5.6 |

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_CEC | CEC - meq per 100g of soil - Not recorded |
| 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_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_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 (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 |
| 19B_NR | Calcium Carbonate (CaCO3) - Not recorded |
| 3_NR | Electrical conductivity or soluble salts - Not recorded |
| 4_NR | pH of soil - Not recorded |

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|------------|--|
| 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) |