Soil - Certificate of Analysis - E25-01-1570

Client:	Clarrich Farms Pty Ltd	Laboratory:	Environmental Analysis Laboratory
Contact:	Lab Results	Contact:	EAL Customer Service Team
Address:	Level 1, 487 - 489 Ruthven Street, , TOOWOOMBAH, QLD 4350, Australia	Address:	Military Road, East Lismore NSW 2480, Australia
Telephone:	0448 924 855	Telephone:	(02) 6620 3678
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Customer reference:	EPL Point 2 - Paddock 1, 2 & 3 Samples	Request ID:	EAL /E25-01-1570
Number of samples:	9	Report ID:	E25-01-1570_EALS1_1
Date samples received:	17 October 2025	Issue date:	04 November 2025

Authorised by:	Josh Harris
Position:	Technical Officer

Comments: EAL is a NATA accredited laboratory (14960), accredited for compliance with ISO/IEC 17025 - Testing.

Samples arrived 17/10/25

Certificate of Analysis

Request ID: EAL/E25-01-1570 Report ID: E25-01-1570_EALS1_1 Issue date: 04 November 2025

			Client Sample ID:	P1
			Sample Depth:	0-0.1m
			Sample Date:	16 October 2025
			EAL Sample ID:	E25-01-1570-0001
Parameter	**Unit**	**Method Reference**	**LOR**	**---**
Moisture 105°C (dry basis)	%	Inhouse S2 (105)	<0.1	7.9
pH (CaCl2)	units	**Rayment & Lyons 2011 - 4B4	---	5.16
pH (H2O)	units	Rayment & Lyons 2011 - 4A1	---	5.92
Electrical Conductivity	dS/m	Rayment & Lyons 2011 - 3A1	<0.005	0.125
Calcium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.05	5.24
Calcium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<22	2350
Calcium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<10	1050
Magnesium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.01	2.81
Magnesium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<2	764
Magnesium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<1	341
Potassium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.12	0.43
Potassium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<112	375
Potassium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<50	167
Sodium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.065	0.10
Sodium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<33	52.2
Sodium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<15	23.3
Aluminium - Exchangeable	cmol+/kg	** Inhouse S37	<0.01	0.05
Aluminium - Exchangeable	kg/ha	** Inhouse S37	<1	10
Aluminium - Exchangeable	mg/kg	** Inhouse S37	<1	4.6
Hydrogen - Exchangeable	cmol+/kg	** Rayment & Lyons 2011 - 15G1	<0.01	0.25
Hydrogen - Exchangeable	kg/ha	** Rayment & Lyons 2011 - 15G1	<1	5.7
Hydrogen - Exchangeable	mg/kg	** Rayment & Lyons 2011 - 15G1	<1	2.5
Calcium - Base Saturation	%	** Calculation	<0.1	59
Magnesium - Base Saturation	%	** Calculation	<0.1	32
Potassium - Base Saturation	%	** Calculation	<0.1	4.8
Sodium - Base Saturation (ESP)	%	** Calculation	<0.1	1.1
Aluminium - Base Saturation	%	** Calculation	<0.1	0.6
Hydrogen - Base Saturation	%	** Calculation	<0.1	2.9
Calcium/Magnesium Ratio	---	** Calculation	<0.1	1.9
Effective Cation Exchange Capacity	cmol+/kg	** Calculation	---	8.9
Native NaOH Phosphorus	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	788
Equilibrium Phosphorus	mg/L	** Inhouse S18b (Based on Abbott 1985)	<1	10.8
Equilibrium Absorption Maximum	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	2320
kg P sorption/hectare (to 15cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	2260
kg P sorption/hectare (to 100cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	15100
Emerson Aggregate Stability Test (SAR5)	---	** Inhouse S79	---	*3/6, slake 2
Texture	---	** NCST 2009	---	Light clay

Notes:

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Certificate of Analysis

Request ID: EAL/E25-01-1570 Report ID: E25-01-1570_EALS1_1 Issue date: 04 November 2025

Notes:

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- All analysis is on a dry weight (DW) basis - samples were dried at 60 °C for 48 h prior to crushing and analysis.
- For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
- ppm = mg/kg dried sample

Certificate of Analysis

Request ID: EAL/E25-01-1570 Report ID: E25-01-1570_EALS1_1 Issue date: 04 November 2025

			Client Sample ID:	P1
			Sample Depth:	0.1-0.4m
			Sample Date:	16 October 2025
			EAL Sample ID:	E25-01-1570-0002
Parameter	**Unit**	**Method Reference**	**LOR**	**---**
Moisture 105°C (dry basis)	%	Inhouse S2 (105)	<0.1	13.2
pH (CaCl2)	units	**Rayment & Lyons 2011 - 4B4	---	5.31
pH (H2O)	units	Rayment & Lyons 2011 - 4A1	---	6.26
Electrical Conductivity	dS/m	Rayment & Lyons 2011 - 3A1	<0.005	0.078
Calcium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.05	5.23
Calcium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<22	2350
Calcium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<10	1050
Magnesium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.01	2.59
Magnesium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<2	706
Magnesium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<1	315
Potassium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.12	0.59
Potassium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<112	518
Potassium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<50	231
Sodium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.065	< 0.065
Sodium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<33	< 33
Sodium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<15	< 15
Aluminium - Exchangeable	cmol+/kg	** Inhouse S37	<0.01	0.01
Aluminium - Exchangeable	kg/ha	** Inhouse S37	<1	2.7
Aluminium - Exchangeable	mg/kg	** Inhouse S37	<1	1.2
Hydrogen - Exchangeable	cmol+/kg	** Rayment & Lyons 2011 - 15G1	<0.01	0.049
Hydrogen - Exchangeable	kg/ha	** Rayment & Lyons 2011 - 15G1	<1	1.1
Hydrogen - Exchangeable	mg/kg	** Rayment & Lyons 2011 - 15G1	<1	< 1
Calcium - Base Saturation	%	** Calculation	<0.1	61
Magnesium - Base Saturation	%	** Calculation	<0.1	30
Potassium - Base Saturation	%	** Calculation	<0.1	6.9
Sodium - Base Saturation (ESP)	%	** Calculation	<0.1	0.6
Aluminium - Base Saturation	%	** Calculation	<0.1	0.2
Hydrogen - Base Saturation	%	** Calculation	<0.1	0.6
Calcium/Magnesium Ratio	---	** Calculation	<0.1	2.0
Effective Cation Exchange Capacity	cmol+/kg	** Calculation	---	8.5
Native NaOH Phosphorus	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	1390
Equilibrium Phosphorus	mg/L	** Inhouse S18b (Based on Abbott 1985)	<1	11.5
Equilibrium Absorption Maximum	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	3020
kg P sorption/hectare (to 15cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	2230
kg P sorption/hectare (to 100cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	14900
Emerson Aggregate Stability Test (SAR5)	---	** Inhouse S79	---	*3/6, slake 1
Texture	---	** NCST 2009	---	Light clay

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Certificate of Analysis

Request ID: EAL/E25-01-1570 Report ID: E25-01-1570_EALS1_1 Issue date: 04 November 2025

Notes:

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- For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
- ppm = mg/kg dried sample

Certificate of Analysis

Request ID: EAL/E25-01-1570 Report ID: E25-01-1570_EALS1_1 Issue date: 04 November 2025

			Client Sample ID:	P1
			Sample Depth:	0.4-1.0m
			Sample Date:	16 October 2025
			EAL Sample ID:	E25-01-1570-0003
Parameter	**Unit**	**Method Reference**	**LOR**	**---**
Moisture 105°C (dry basis)	%	Inhouse S2 (105)	<0.1	17.8
pH (CaCl2)	units	**Rayment & Lyons 2011 - 4B4	---	6.13
pH (H2O)	units	Rayment & Lyons 2011 - 4A1	---	7.03
Electrical Conductivity	dS/m	Rayment & Lyons 2011 - 3A1	<0.005	0.046
Calcium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.05	7.32
Calcium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<22	3290
Calcium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<10	1470
Magnesium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.01	4.42
Magnesium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<2	1200
Magnesium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<1	537
Potassium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.12	0.16
Potassium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<112	140
Potassium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<50	62.6
Sodium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.065	0.24
Sodium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<33	125
Sodium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<15	56.0
Aluminium - Exchangeable	cmol+/kg	** Inhouse S37	<0.01	0.01
Aluminium - Exchangeable	kg/ha	** Inhouse S37	<1	2.6
Aluminium - Exchangeable	mg/kg	** Inhouse S37	<1	1.2
Hydrogen - Exchangeable	cmol+/kg	** Rayment & Lyons 2011 - 15G1	<0.01	< 0.01
Hydrogen - Exchangeable	kg/ha	** Rayment & Lyons 2011 - 15G1	<1	< 1
Hydrogen - Exchangeable	mg/kg	** Rayment & Lyons 2011 - 15G1	<1	< 1
Calcium - Base Saturation	%	** Calculation	<0.1	60
Magnesium - Base Saturation	%	** Calculation	<0.1	36
Potassium - Base Saturation	%	** Calculation	<0.1	1.3
Sodium - Base Saturation (ESP)	%	** Calculation	<0.1	2.0
Aluminium - Base Saturation	%	** Calculation	<0.1	0.1
Hydrogen - Base Saturation	%	** Calculation	<0.1	< 0.1
Calcium/Magnesium Ratio	---	** Calculation	<0.1	1.7
Effective Cation Exchange Capacity	cmol+/kg	** Calculation	---	12.2
Native NaOH Phosphorus	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	1040
Equilibrium Phosphorus	mg/L	** Inhouse S18b (Based on Abbott 1985)	<1	8.5
Equilibrium Absorption Maximum	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	2900
kg P sorption/hectare (to 15cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	2730
kg P sorption/hectare (to 100cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	18200
Emerson Aggregate Stability Test (SAR5)	---	** Inhouse S79	---	*3/6, slake 3
Texture	---	** NCST 2009	---	Light clay

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Certificate of Analysis

Request ID: EAL/E25-01-1570 Report ID: E25-01-1570_EALS1_1 Issue date: 04 November 2025

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- For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
- ppm = mg/kg dried sample

Certificate of Analysis

Request ID: EAL/E25-01-1570 Report ID: E25-01-1570_EALS1_1 Issue date: 04 November 2025

			Client Sample ID:	P2
			Sample Depth:	0-0.1m
			Sample Date:	16 October 2025
			EAL Sample ID:	E25-01-1570-0004
Parameter	**Unit**	**Method Reference**	**LOR**	**---**
Moisture 105°C (dry basis)	%	Inhouse S2 (105)	<0.1	8.1
pH (CaCl2)	units	**Rayment & Lyons 2011 - 4B4	---	5.62
pH (H2O)	units	Rayment & Lyons 2011 - 4A1	---	6.36
Electrical Conductivity	dS/m	Rayment & Lyons 2011 - 3A1	<0.005	0.129
Calcium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.05	6.43
Calcium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<22	2890
Calcium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<10	1290
Magnesium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.01	2.52
Magnesium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<2	686
Magnesium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<1	306
Potassium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.12	0.83
Potassium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<112	725
Potassium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<50	324
Sodium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.065	< 0.065
Sodium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<33	< 33
Sodium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<15	< 15
Aluminium - Exchangeable	cmol+/kg	** Inhouse S37	<0.01	< 0.01
Aluminium - Exchangeable	kg/ha	** Inhouse S37	<1	1.7
Aluminium - Exchangeable	mg/kg	** Inhouse S37	<1	< 1
Hydrogen - Exchangeable	cmol+/kg	** Rayment & Lyons 2011 - 15G1	<0.01	0.076
Hydrogen - Exchangeable	kg/ha	** Rayment & Lyons 2011 - 15G1	<1	1.7
Hydrogen - Exchangeable	mg/kg	** Rayment & Lyons 2011 - 15G1	<1	< 1
Calcium - Base Saturation	%	** Calculation	<0.1	65
Magnesium - Base Saturation	%	** Calculation	<0.1	25
Potassium - Base Saturation	%	** Calculation	<0.1	8.4
Sodium - Base Saturation (ESP)	%	** Calculation	<0.1	0.4
Aluminium - Base Saturation	%	** Calculation	<0.1	< 0.1
Hydrogen - Base Saturation	%	** Calculation	<0.1	0.8
Calcium/Magnesium Ratio	---	** Calculation	<0.1	2.6
Effective Cation Exchange Capacity	cmol+/kg	** Calculation	---	9.9
Native NaOH Phosphorus	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	956
Equilibrium Phosphorus	mg/L	** Inhouse S18b (Based on Abbott 1985)	<1	14.0
Equilibrium Absorption Maximum	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	2250
kg P sorption/hectare (to 15cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	1820
kg P sorption/hectare (to 100cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	12100
Emerson Aggregate Stability Test (SAR5)	---	** Inhouse S79	---	*3/6, slake 1
Texture	---	** NCST 2009	---	Light clay

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- ppm = mg/kg dried sample

Certificate of Analysis

Request ID: EAL/E25-01-1570 Report ID: E25-01-1570_EALS1_1 Issue date: 04 November 2025

			Client Sample ID:	P2
			Sample Depth:	0.1-0.4m
			Sample Date:	16 October 2025
			EAL Sample ID:	E25-01-1570-0005
Parameter	**Unit**	**Method Reference**	**LOR**	**---**
Moisture 105°C (dry basis)	%	Inhouse S2 (105)	<0.1	16.7
pH (CaCl2)	units	**Rayment & Lyons 2011 - 4B4	---	5.18
pH (H2O)	units	Rayment & Lyons 2011 - 4A1	---	6.14
Electrical Conductivity	dS/m	Rayment & Lyons 2011 - 3A1	<0.005	0.075
Calcium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.05	4.84
Calcium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<22	2170
Calcium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<10	969
Magnesium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.01	2.05
Magnesium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<2	559
Magnesium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<1	250
Potassium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.12	0.68
Potassium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<112	599
Potassium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<50	267
Sodium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.065	< 0.065
Sodium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<33	< 33
Sodium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<15	< 15
Aluminium - Exchangeable	cmol+/kg	** Inhouse S37	<0.01	0.01
Aluminium - Exchangeable	kg/ha	** Inhouse S37	<1	2.0
Aluminium - Exchangeable	mg/kg	** Inhouse S37	<1	< 1
Hydrogen - Exchangeable	cmol+/kg	** Rayment & Lyons 2011 - 15G1	<0.01	0.074
Hydrogen - Exchangeable	kg/ha	** Rayment & Lyons 2011 - 15G1	<1	1.7
Hydrogen - Exchangeable	mg/kg	** Rayment & Lyons 2011 - 15G1	<1	< 1
Calcium - Base Saturation	%	** Calculation	<0.1	63
Magnesium - Base Saturation	%	** Calculation	<0.1	27
Potassium - Base Saturation	%	** Calculation	<0.1	8.9
Sodium - Base Saturation (ESP)	%	** Calculation	<0.1	0.6
Aluminium - Base Saturation	%	** Calculation	<0.1	0.1
Hydrogen - Base Saturation	%	** Calculation	<0.1	1.0
Calcium/Magnesium Ratio	---	** Calculation	<0.1	2.4
Effective Cation Exchange Capacity	cmol+/kg	** Calculation	---	7.7
Native NaOH Phosphorus	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	912
Equilibrium Phosphorus	mg/L	** Inhouse S18b (Based on Abbott 1985)	<1	7.9
Equilibrium Absorption Maximum	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	2810
kg P sorption/hectare (to 15cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	2820
kg P sorption/hectare (to 100cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	18800
Emerson Aggregate Stability Test (SAR5)	---	** Inhouse S79	---	*3/6, slake 3
Texture	---	** NCST 2009	---	Light clay

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- ppm = mg/kg dried sample

Certificate of Analysis

Request ID: EAL/E25-01-1570 Report ID: E25-01-1570_EALS1_1 Issue date: 04 November 2025

			Client Sample ID:	P2
			Sample Depth:	0.4-1.0m
			Sample Date:	16 October 2025
			EAL Sample ID:	E25-01-1570-0006
Parameter	**Unit**	**Method Reference**	**LOR**	**---**
Moisture 105°C (dry basis)	%	Inhouse S2 (105)	<0.1	18.8
pH (CaCl2)	units	**Rayment & Lyons 2011 - 4B4	---	5.39
pH (H2O)	units	Rayment & Lyons 2011 - 4A1	---	6.43
Electrical Conductivity	dS/m	Rayment & Lyons 2011 - 3A1	<0.005	0.053
Calcium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.05	5.04
Calcium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<22	2260
Calcium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<10	1010
Magnesium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.01	2.25
Magnesium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<2	613
Magnesium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<1	274
Potassium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.12	0.60
Potassium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<112	525
Potassium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<50	234
Sodium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.065	< 0.065
Sodium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<33	< 33
Sodium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<15	< 15
Aluminium - Exchangeable	cmol+/kg	** Inhouse S37	<0.01	< 0.01
Aluminium - Exchangeable	kg/ha	** Inhouse S37	<1	1.8
Aluminium - Exchangeable	mg/kg	** Inhouse S37	<1	< 1
Hydrogen - Exchangeable	cmol+/kg	** Rayment & Lyons 2011 - 15G1	<0.01	0.046
Hydrogen - Exchangeable	kg/ha	** Rayment & Lyons 2011 - 15G1	<1	1.0
Hydrogen - Exchangeable	mg/kg	** Rayment & Lyons 2011 - 15G1	<1	< 1
Calcium - Base Saturation	%	** Calculation	<0.1	63
Magnesium - Base Saturation	%	** Calculation	<0.1	28
Potassium - Base Saturation	%	** Calculation	<0.1	7.5
Sodium - Base Saturation (ESP)	%	** Calculation	<0.1	0.5
Aluminium - Base Saturation	%	** Calculation	<0.1	0.1
Hydrogen - Base Saturation	%	** Calculation	<0.1	0.6
Calcium/Magnesium Ratio	---	** Calculation	<0.1	2.2
Effective Cation Exchange Capacity	cmol+/kg	** Calculation	---	8.0
Native NaOH Phosphorus	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	620
Equilibrium Phosphorus	mg/L	** Inhouse S18b (Based on Abbott 1985)	<1	7.9
Equilibrium Absorption Maximum	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	2410
kg P sorption/hectare (to 15cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	2730
kg P sorption/hectare (to 100cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	18200
Emerson Aggregate Stability Test (SAR5)	---	** Inhouse S79	---	*3/6, slake 3
Texture	---	** NCST 2009	---	Medium clay

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Certificate of Analysis

Request ID: EAL/E25-01-1570 Report ID: E25-01-1570_EALS1_1 Issue date: 04 November 2025

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- ppm = mg/kg dried sample

Certificate of Analysis

Request ID: EAL/E25-01-1570 Report ID: E25-01-1570_EALS1_1 Issue date: 04 November 2025

			Client Sample ID:	P3
			Sample Depth:	0-0.1m
			Sample Date:	16 October 2025
			EAL Sample ID:	E25-01-1570-0007
Parameter	**Unit**	**Method Reference**	**LOR**	**---**
Moisture 105°C (dry basis)	%	Inhouse S2 (105)	<0.1	8.8
pH (CaCl2)	units	**Rayment & Lyons 2011 - 4B4	---	5.77
pH (H2O)	units	Rayment & Lyons 2011 - 4A1	---	6.39
Electrical Conductivity	dS/m	Rayment & Lyons 2011 - 3A1	<0.005	0.241
Calcium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.05	5.91
Calcium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<22	2650
Calcium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<10	1190
Magnesium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.01	2.98
Magnesium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<2	812
Magnesium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<1	363
Potassium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.12	1.02
Potassium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<112	893
Potassium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<50	398
Sodium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.065	0.07
Sodium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<33	35.6
Sodium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<15	15.9
Aluminium - Exchangeable	cmol+/kg	** Inhouse S37	<0.01	< 0.01
Aluminium - Exchangeable	kg/ha	** Inhouse S37	<1	1.1
Aluminium - Exchangeable	mg/kg	** Inhouse S37	<1	< 1
Hydrogen - Exchangeable	cmol+/kg	** Rayment & Lyons 2011 - 15G1	<0.01	0.096
Hydrogen - Exchangeable	kg/ha	** Rayment & Lyons 2011 - 15G1	<1	2.1
Hydrogen - Exchangeable	mg/kg	** Rayment & Lyons 2011 - 15G1	<1	< 1
Calcium - Base Saturation	%	** Calculation	<0.1	59
Magnesium - Base Saturation	%	** Calculation	<0.1	30
Potassium - Base Saturation	%	** Calculation	<0.1	10
Sodium - Base Saturation (ESP)	%	** Calculation	<0.1	0.7
Aluminium - Base Saturation	%	** Calculation	<0.1	< 0.1
Hydrogen - Base Saturation	%	** Calculation	<0.1	0.9
Calcium/Magnesium Ratio	---	** Calculation	<0.1	2.0
Effective Cation Exchange Capacity	cmol+/kg	** Calculation	---	10.1
Native NaOH Phosphorus	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	796
Equilibrium Phosphorus	mg/L	** Inhouse S18b (Based on Abbott 1985)	<1	10.5
Equilibrium Absorption Maximum	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	2360
kg P sorption/hectare (to 15cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	2320
kg P sorption/hectare (to 100cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	15500
Emerson Aggregate Stability Test (SAR5)	---	** Inhouse S79	---	*3/6, slake 1
Texture	---	** NCST 2009	---	Sandy clay loam

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Certificate of Analysis

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- ppm = mg/kg dried sample

Certificate of Analysis

Request ID: EAL/E25-01-1570 Report ID: E25-01-1570_EALS1_1 Issue date: 04 November 2025

			Client Sample ID:	P3
			Sample Depth:	0.1-0.4m
			Sample Date:	16 October 2025
			EAL Sample ID:	E25-01-1570-0008
Parameter	**Unit**	**Method Reference**	**LOR**	**---**
Moisture 105°C (dry basis)	%	Inhouse S2 (105)	<0.1	18.8
pH (CaCl2)	units	**Rayment & Lyons 2011 - 4B4	---	6.02
pH (H2O)	units	Rayment & Lyons 2011 - 4A1	---	6.85
Electrical Conductivity	dS/m	Rayment & Lyons 2011 - 3A1	<0.005	0.087
Calcium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.05	6.92
Calcium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<22	3110
Calcium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<10	1390
Magnesium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.01	3.47
Magnesium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<2	943
Magnesium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<1	421
Potassium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.12	0.48
Potassium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<112	416
Potassium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<50	186
Sodium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.065	0.10
Sodium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<33	52.5
Sodium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<15	23.4
Aluminium - Exchangeable	cmol+/kg	** Inhouse S37	<0.01	< 0.01
Aluminium - Exchangeable	kg/ha	** Inhouse S37	<1	< 1
Aluminium - Exchangeable	mg/kg	** Inhouse S37	<1	< 1
Hydrogen - Exchangeable	cmol+/kg	** Rayment & Lyons 2011 - 15G1	<0.01	< 0.01
Hydrogen - Exchangeable	kg/ha	** Rayment & Lyons 2011 - 15G1	<1	< 1
Hydrogen - Exchangeable	mg/kg	** Rayment & Lyons 2011 - 15G1	<1	< 1
Calcium - Base Saturation	%	** Calculation	<0.1	63
Magnesium - Base Saturation	%	** Calculation	<0.1	32
Potassium - Base Saturation	%	** Calculation	<0.1	4.3
Sodium - Base Saturation (ESP)	%	** Calculation	<0.1	0.9
Aluminium - Base Saturation	%	** Calculation	<0.1	< 0.1
Hydrogen - Base Saturation	%	** Calculation	<0.1	< 0.1
Calcium/Magnesium Ratio	---	** Calculation	<0.1	2.0
Effective Cation Exchange Capacity	cmol+/kg	** Calculation	---	11.0
Native NaOH Phosphorus	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	342
Equilibrium Phosphorus	mg/L	** Inhouse S18b (Based on Abbott 1985)	<1	9.1
Equilibrium Absorption Maximum	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	1900
kg P sorption/hectare (to 15cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	2450
kg P sorption/hectare (to 100cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	16300
Emerson Aggregate Stability Test (SAR5)	---	** Inhouse S79	---	*3/6, slake 1
Texture	---	** NCST 2009	---	Clay loam

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- ppm = mg/kg dried sample

Certificate of Analysis

Request ID: EAL/E25-01-1570 Report ID: E25-01-1570_EALS1_1 Issue date: 04 November 2025

			Client Sample ID:	P3
			Sample Depth:	0.4-1.0m
			Sample Date:	16 October 2025
			EAL Sample ID:	E25-01-1570-0009
Parameter	**Unit**	**Method Reference**	**LOR**	**---**
Moisture 105°C (dry basis)	%	Inhouse S2 (105)	<0.1	21.9
pH (CaCl2)	units	**Rayment & Lyons 2011 - 4B4	---	5.81
pH (H2O)	units	Rayment & Lyons 2011 - 4A1	---	6.78
Electrical Conductivity	dS/m	Rayment & Lyons 2011 - 3A1	<0.005	0.046
Calcium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.05	5.89
Calcium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<22	2650
Calcium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<10	1180
Magnesium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.01	4.02
Magnesium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<2	1090
Magnesium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<1	489
Potassium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.12	0.21
Potassium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<112	187
Potassium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<50	83.7
Sodium - Exchangeable	cmol+/kg	Rayment & Lyons 2011 - 15D3	<0.065	0.11
Sodium - Exchangeable	kg/ha	Rayment & Lyons 2011 - 15D3	<33	59.2
Sodium - Exchangeable	mg/kg	Rayment & Lyons 2011 - 15D3	<15	26.4
Aluminium - Exchangeable	cmol+/kg	** Inhouse S37	<0.01	< 0.01
Aluminium - Exchangeable	kg/ha	** Inhouse S37	<1	< 1
Aluminium - Exchangeable	mg/kg	** Inhouse S37	<1	< 1
Hydrogen - Exchangeable	cmol+/kg	** Rayment & Lyons 2011 - 15G1	<0.01	< 0.01
Hydrogen - Exchangeable	kg/ha	** Rayment & Lyons 2011 - 15G1	<1	< 1
Hydrogen - Exchangeable	mg/kg	** Rayment & Lyons 2011 - 15G1	<1	< 1
Calcium - Base Saturation	%	** Calculation	<0.1	58
Magnesium - Base Saturation	%	** Calculation	<0.1	39
Potassium - Base Saturation	%	** Calculation	<0.1	2.1
Sodium - Base Saturation (ESP)	%	** Calculation	<0.1	1.1
Aluminium - Base Saturation	%	** Calculation	<0.1	< 0.1
Hydrogen - Base Saturation	%	** Calculation	<0.1	< 0.1
Calcium/Magnesium Ratio	---	** Calculation	<0.1	1.5
Effective Cation Exchange Capacity	cmol+/kg	** Calculation	---	10.2
Native NaOH Phosphorus	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	66.5
Equilibrium Phosphorus	mg/L	** Inhouse S18b (Based on Abbott 1985)	<1	2.9
Equilibrium Absorption Maximum	mg P/kg	** Inhouse S18b (Based on Abbott 1985)	<1	2390
kg P sorption/hectare (to 15cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	3780
kg P sorption/hectare (to 100cm depth)	---	** Inhouse S18b (Based on Abbott 1985)	<1	25200
Emerson Aggregate Stability Test (SAR5)	---	** Inhouse S79	---	*3/6, slake 1
Texture	---	** NCST 2009	---	Medium clay

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