CERTIFICATE OF ANALYSIS

Work Order	: **EB2604821**	Page	: 1 of 4
Client	: **BUTLER PARTNERS PTY LTD**	Laboratory	: Environmental Division Brisbane
Contact	: JACK VAHTERA	Contact	: Nathan King
Address	: PO BOX 2267 FORTITUDE VALLEY BC QLD, AUSTRALIA 4006	Address	: 2 Byth Street Stafford QLD Australia 4053
Telephone	: ----	Telephone	: +61-7-3552-8685
Project	: BE26-1047A	Date Samples Received	: 10-Feb-2026 15:50
Order number	: ENVIROBNE-2688	Date Analysis Commenced	: 16-Feb-2026
C-O-C number	: ----	Issue Date	: 17-Feb-2026 15:26
Sampler	: CAM PEARSON		
Site	: Loganlea, 63 Cairns St		
Quote number	: EN/000 (Planned event Tables)		
No. of samples received	: 6		
No. of samples analysed	: 6		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ben Felgendrejeris	Senior Acid Sulfate Soil Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- ASS: EA033 (CRS Suite): Analysis is performed as per the Acid Sulfate Soils Laboratory Methods Guidelines (2004) and the updated National Acid Sulfate Soils Guidance: National acid sulfate soils identification and laboratory methods manual, Department of Agriculture and Water Resources, Canberra, ACT (2018)
- ASS: EA033 (CRS Suite): Retained Acidity not required because pH KCl greater than or equal to 4.5
- ASS: EA033 (CRS Suite): Laboratory determinations of ANC needs to be corroborated by effectiveness of the measured ANC in relation to incubation ANC. Unless corroborated, the results of ANC testing should be discounted when determining Net Acidity for comparison with action criteria, or for the determination of the acidity hazard and required liming amounts.
- ASS: EA033 (CRS Suite): Liming rate is calculated and reported on a dry weight basis assuming use of fine agricultural lime (CaCO3) and using a safety factor of 1.5 to allow for non-homogeneous mixing and poor reactivity of lime. For conversion of Liming Rate from 'kg/t dry weight' to 'kg/m3 in-situ soil', multiply 'reported results' x 'wet bulk density of soil in t/m3'.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	Stockpile 2 - Sample A	Stockpile 2 - Sample B	Stockpile 2 - Sample C	Stockpile 3 - Sample A	Stockpile 3 - Sample B
				Sampling date / time	10-Feb-2026 00:00	10-Feb-2026 00:00	10-Feb-2026 00:00	10-Feb-2026 00:00	10-Feb-2026 00:00
Compound	CAS Number	LOR	Unit		EB2604821-001	EB2604821-002	EB2604821-003	EB2604821-004	EB2604821-005
					Result	Result	Result	Result	Result
EA033-A: Actual Acidity									
pH KCl (23A)	----	0.1	pH Unit		**5.7**	**7.8**	**7.5**	**8.0**	**7.9**
Titratable Actual Acidity (23F)	----	2	mole H+ / t		**21**	<2	<2	<2	<2
sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S		**0.03**	<0.02	<0.02	<0.02	<0.02
EA033-B: Potential Acidity									
Chromium Reducible Sulfur (22B)	----	0.005	% S		**0.008**	**0.011**	**0.007**	**0.011**	**0.029**
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t		<10	<10	<10	<10	**18**
EA033-C: Acid Neutralising Capacity									
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3		**----**	**3.12**	**1.46**	**7.36**	**11.0**
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t		**----**	**624**	**291**	**1470**	**2190**
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S		**----**	**1.00**	**0.47**	**2.36**	**3.52**
EA033-E: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		**1.5**	**1.5**	**1.5**	**1.5**	**1.5**
Net Acidity (sulfur units)	----	0.02	% S		**0.04**	<0.02	<0.02	<0.02	<0.02
Net Acidity (acidity units)	----	10	mole H+ / t		**26**	<10	<10	<10	<10
Liming Rate	----	1	kg CaCO3/t		**2**	<1	<1	<1	<1
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		**0.04**	<0.02	<0.02	<0.02	**0.03**
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		**26**	<10	<10	<10	**18**
Liming Rate excluding ANC	----	1	kg CaCO3/t		**2**	<1	<1	<1	**1**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	Stockpile 3 - Sample C	----	----	----	----
				Sampling date / time	10-Feb-2026 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		EB2604821-006	--------	--------	--------	--------
					Result	----	----	----	----
EA033-A: Actual Acidity									
pH KCl (23A)	----	0.1	pH Unit		**7.9**	----	----	----	----
Titratable Actual Acidity (23F)	----	2	mole H+ / t		<2	----	----	----	----
sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S		<0.02	----	----	----	----
EA033-B: Potential Acidity									
Chromium Reducible Sulfur (22B)	----	0.005	% S		**0.008**	----	----	----	----
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t		<10	----	----	----	----
EA033-C: Acid Neutralising Capacity									
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3		**20.0**	----	----	----	----
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t		**4000**	----	----	----	----
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S		**6.41**	----	----	----	----
EA033-E: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		**1.5**	----	----	----	----
Net Acidity (sulfur units)	----	0.02	% S		<0.02	----	----	----	----
Net Acidity (acidity units)	----	10	mole H+ / t		<10	----	----	----	----
Liming Rate	----	1	kg CaCO3/t		<1	----	----	----	----
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		<0.02	----	----	----	----
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		<10	----	----	----	----
Liming Rate excluding ANC	----	1	kg CaCO3/t		<1	----	----	----	----