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Submission Number:	2-25-0766
Report Number:	43918
Issue Date:	25/02/2025
Status:	Final

CERTIFICATE OF ANALYSIS

Customer:	EPA Tasmania	Submission Description:	Investigation
Address:	GPO Box 1550 HOBART TAS 7001	Sample Received Date:	18/02/2025
Contact:	[redacted]	Contract Number:	2902
		Client Order Number:	

Sample(s) analysed as received. Sampling date and time data supplied by the client. The document shall not be reproduced except in full.
Additional information relating to this submission can be found in the sample receipt notification.
This report supersedes any previous reports with this submission number.
Many tests specify a holding time which gives the recommended timeframe by which a sample should be preserved/extracted and/or analysed after the sample is taken.
Holding time information can be found on the AST website https://analyticalservices.tas.gov.au/our-services/containers-samples-and-submissions .
Whilst every effort is made to analyse samples within these timeframes, situations can occur where this is not possible.
Where a test has been conducted outside the recommended sample holding time this should be taken into account when interpreting results.

The results in this report were authorised by:

Name	*Position*
[redacted]	**Section Head - Organic Chemistry**

Test Information:

Method ID	*Test Description*	*Date Commenced:*
2001	Moisture in Soil and Other Solids at 104 ± 3 °C	19-02-2024
2419	Lipid Biomarkers in Soil and other Solids by GC-MS	18-02-2025
2419F	Lipid Biomarkers in Soil and other Solids by GC-MS (Fatty Acid Profile)	24-02-2025
2419P	Sample Preparation for Lipid Biomarkers in Solids by GC-MS	18-02-2025
2515	Antibiotics in Soil by LC-MS/MS	20-02-2025
2515P	Sample Preparation for Antibiotics in Soil	20-02-2025

Sample Comments

Sample Number: 247533

2419 Lipid Biomarkers in Soil and other Solids by GC-MS

Due to the high levels of sterols present, the results for this sample should be considered approximate.

Sample Number: 247534

2419 Lipid Biomarkers in Soil and other Solids by GC-MS

Due to the high levels of sterols present, the results for this sample should be considered approximate.

Sample Number: 247535

2419 Lipid Biomarkers in Soil and other Solids by GC-MS

Due to the high levels of sterols present, the results for this sample should be considered approximate.

Sample Number: 247536

2419 Lipid Biomarkers in Soil and other Solids by GC-MS

Due to the high levels of sterols present, the results for this sample should be considered approximate.

2515 Antibiotics in Soil by LC-MS/MS

Oxytetracycline

The concentration of OTC in this sample is semi-quantitative, due to the very high levels present.

* NATA accreditation does not cover this result

Chemistry Test Results (Soil - Sediment - Solid Waste)

		Sample Description	Verona Sands	Community Member 1	Community Member 2	Feed
		Sampled Date/ Time	17/02/25 15:25	16/02/25 0:00	16/02/25 0:00	17/02/25 0:00
Method ID	Analyte	Units	247533	247534	247535	247536
2001	Moisture	% w/w	11.5	11.9	11.5	6.4
	22-Dehydrocholesterol	µg/g DMB	3.65*	7.71*	3.36*	13.8*
	24:0 n-alkanol	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
	24-ethylcoprostanol	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
	24-Ethyl-epi-coprostanol	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
	24-Methylenecholesterol	µg/g DMB	36.4*	34.6*	29.2*	36.1*
	26:0 n-alkanol	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
	28:0 n-alkanol	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
	5α-Cholestanol	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
	Brassicasterol	µg/g DMB	18.9*	16.5*	14.7*	37.6*
	Campesterol	µg/g DMB	78.2*	70.0*	62.2*	180*
	Cholesterol	µg/g DMB	2130*	1990*	1710*	1920*
2419	Coprostanol	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
	Desmosterol	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
	Dinosterol	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
	Epicoprostanol	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
	Ergosterol	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
	Isofucosterol	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
	Phytol	µg/g DMB	10.2*	7.68*	9.29*	32.9*
	Sitostanol	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
	Sitosterol	µg/g DMB	50.6*	45.2*	41.7*	212*
	ß-Amyrin	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
	Stigmasterol	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
	α-Amyrin	µg/g DMB	<0.05*	<0.05*	<0.05*	<0.05*
2419F	16 PUFA Hexadecatetraenoic Acid	%	0.2*	0.2*	0.2*	0.4*
	14:0 Mystric Acid	%	1.3*	1.3*	1.3*	2.2*
	15:0 Pentadecanoic Acid	%	0.1*	0.1*	0.1*	0.5*
	16:0 Palmitic Acid	%	8.9*	8.8*	8.8*	18*

* NATA accreditation does not cover this result

Chemistry Test Results (Soil - Sediment - Solid Waste)

	Sample Description	Verona Sands	Community Member 1	Community Member 2	Feed
	Sampled Date/ Time	17/02/25 15:25	16/02/25 0:00	16/02/25 0:00	17/02/25 0:00
Method ID	Analyte	Units	247533	247534	247535	247536
	16:1ω5 Hexadeconoic Acid	%	<0.1*	<0.1*	<0.1*	<0.1*
	16:1ω7 Palmitoleic Acid	%	3.5*	3.5*	3.5*	4.3*
	17:0 Margaric Acid	%	0.2*	0.2*	0.2*	<0.1*
	18:0 Stearic Acid	%	2.7*	2.7*	2.7*	5.4*
	18:1ω7 Vaccenic Acid	%	3.6*	3.4*	3.2*	2.3*
	18:1ω9 Oleic Acid	%	54*	54*	54*	43*
	18:2ω6 Linoleic Acid	%	16*	16*	16*	13*
	18:3ω3 α-Linolenic Acid	%	<0.1*	<0.1*	<0.1*	<0.1*
	18:3ω6 γ-Linolenic Acid	%	<0.1*	<0.1*	<0.1*	0.9*
	18:4ω3 Stearidonic Acid	%	0.5*	0.5*	0.4*	<0.1*
	20:0 Arachidic Acid	%	0.2*	0.2*	0.2*	0.7*
	20:1ω11 Gadoleic Acid	%	<0.1*	<0.1*	<0.1*	<0.1*
	20:1ω9 Gondoic Acid	%	2.4*	2.5*	2.5*	0.9*
2419F	**20:2ω6 Eicosadienoic Acid**	%	0.6*	0.6*	0.6*	0.3*
	20:4ω6 Arachidonic Acid	%	0.4*	0.4*	0.4*	0.5*
	20:5ω3 Eicosapentaenoic Acid	%	1.3*	1.4*	1.4*	2.2*
	22:0 Behenic Acid	%	0.3*	0.3*	0.4*	0.4*
	22:1ω11 Docosenoic Acid	%	<0.1*	<0.1*	<0.1*	<0.1*
	22:1ω9 Erucic Acid	%	0.4*	0.4*	0.4*	0.9*
	22:5ω3 Docosapentaenoic Acid	%	0.2*	0.2*	0.2*	0.3*
	22:6ω3 Docosahexaenoic Acid	%	2.9*	3.1*	3.0*	3.8*
	24:0 Lignoceric Acid	%	<0.1*	<0.1*	<0.1*	<0.1*
	α15:0 Methyltetradecanoic Acid	%	<0.1*	<0.1*	<0.1*	<0.1*
	α17:0 Methylhexanoic Acid	%	<0.1*	<0.1*	<0.1*	<0.1*
	í15:0 Methyltetradecanoic Acid	%	0.1*	0.1*	0.2*	0.2*
	í16:0 Methylpentadecanoic Acid	%	<0.1*	<0.1*	<0.1*	<0.1*
	í17:0 Methylhexadecanoic Acid	%	<0.1*	<0.1*	<0.1*	<0.1*
2515	**Oxytetracycline**	mg/kg DMB	<0.01*	<0.01*	<0.01*	29000*

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