



## CERTIFICATE OF ANALYSIS

Work Order	: ES2414713	Page	: 1 of 6
Client	: Department of Climate Change, Energy, the Environment and Water	Laboratory	: Environmental Division Sydney
Contact	: [REDACTED]	Contact	: Customer Services ES
Address	: [REDACTED]	Address	: [REDACTED]
Telephone	: [REDACTED]	Telephone	: [REDACTED]
Project	: Darling Baaka River Health Program	Date Samples Received	: 03-May-2024 16:34
Order number	: [REDACTED]	Date Analysis Commenced	: 08-May-2024
C-O-C number	: [REDACTED]	Issue Date	: 09-May-2024 17:12
Sampler	: [REDACTED]		
Site	: [REDACTED]		
Quote number	: ES24DEPENWAT0001		
No. of samples received	: 17		
No. of samples analysed	: 17		



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
[REDACTED]	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW

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Project : Darling Baaka River Health Program



### 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.



Analytical Results

Sub-Matrix: SOLID (Matrix: SOIL)				Sample ID	MFK-Sed-1 20240325	MFK-Sed-3 20240325	MFK-Sed-4 20240325	MFK-Sed-8 20240325	MFK-Sed-10 20240325
Sampling date / time					25-Mar-2024 00:00	25-Mar-2024 00:00	25-Mar-2024 00:00	25-Mar-2024 00:00	25-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2414713-001	ES2414713-002	ES2414713-003	ES2414713-004	ES2414713-005	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	74.0	67.8	65.6	60.2	76.4	
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg	27900	27000	24000	16000	30600	
Cobalt	7440-48-4	2	mg/kg	11	13	11	8	11	
Manganese	7439-96-5	5	mg/kg	936	672	607	397	810	
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	<5	<5	
Silver	7440-22-4	2	mg/kg	<2	<2	<2	<2	<2	
Arsenic	7440-38-2	5	mg/kg	5	<5	<5	<5	5	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	33	34	30	20	36	
Copper	7440-50-8	5	mg/kg	18	20	15	11	19	
Lead	7439-92-1	5	mg/kg	11	12	9	6	11	
Nickel	7440-02-0	2	mg/kg	25	26	23	16	28	
Zinc	7440-66-6	5	mg/kg	58	62	51	35	64	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	



Analytical Results

Sub-Matrix: SOLID (Matrix: SOIL)				Sample ID	MFK-Sed-11 20240325	MFK-Sed-12 20240325	MFK-Sed-13 20240325	MFK-Sed-14 20240325	MFK-Sed-15 20240325
Sampling date / time					25-Mar-2024 00:00	25-Mar-2024 00:00	25-Mar-2024 00:00	25-Mar-2024 00:00	25-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2414713-006	ES2414713-007	ES2414713-008	ES2414713-009	ES2414713-010	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	70.3	67.0	71.5	73.5	70.2	
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg	28600	28500	25600	25000	24800	
Cobalt	7440-48-4	2	mg/kg	12	12	12	10	10	
Manganese	7439-96-5	5	mg/kg	637	694	672	598	522	
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	<5	<5	
Silver	7440-22-4	2	mg/kg	<2	<2	<2	<2	<2	
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	35	35	32	30	30	
Copper	7440-50-8	5	mg/kg	19	20	18	17	16	
Lead	7439-92-1	5	mg/kg	11	11	10	10	9	
Nickel	7440-02-0	2	mg/kg	25	26	25	23	23	
Zinc	7440-66-6	5	mg/kg	61	63	58	55	58	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	



Analytical Results

Sub-Matrix: SOLID (Matrix: SOIL)				Sample ID	MFK-Sed-16 20240325	MFK-Sed-17A 20240325	MFK-Sed-17B 20240325	MFK-Sed-20 20240325	MFK-Sed-31 20240325
Sampling date / time				25-Mar-2024 00:00		25-Mar-2024 00:00	25-Mar-2024 00:00	25-Mar-2024 00:00	25-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2414713-011		ES2414713-012	ES2414713-013	ES2414713-014	ES2414713-015
				Result		Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content		----	1.0	%	63.8	61.2	73.7	70.9	73.8
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg	23300	18800	26900	29500	28300	
Cobalt	7440-48-4	2	mg/kg	11	10	11	13	12	
Manganese	7439-96-5	5	mg/kg	541	437	580	582	538	
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	<5	<5	
Silver	7440-22-4	2	mg/kg	<2	<2	<2	<2	<2	
Arsenic	7440-38-2	5	mg/kg	<5	<5	5	5	<5	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	29	23	32	35	33	
Copper	7440-50-8	5	mg/kg	17	15	18	21	18	
Lead	7439-92-1	5	mg/kg	10	9	10	13	11	
Nickel	7440-02-0	2	mg/kg	22	19	24	27	26	
Zinc	7440-66-6	5	mg/kg	53	48	58	67	61	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	



Analytical Results

Sub-Matrix: SOLID (Matrix: SOIL)				Sample ID	MFK-Sed-32 20240325	TRIP 24 PESTICIDS SITE 1	----	----	----
Sampling date / time				25-Mar-2024 00:00	25-Mar-2024 00:00	----	----	----	
Compound	CAS Number	LOR	Unit	ES2414713-016	ES2414713-017	-----	-----	-----	
				Result	Result	----	----	----	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	67.2	54.1	----	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg	25000	21000	----	----	----	
Cobalt	7440-48-4	2	mg/kg	12	10	----	----	----	
Manganese	7439-96-5	5	mg/kg	813	359	----	----	----	
Selenium	7782-49-2	5	mg/kg	<5	<5	----	----	----	
Silver	7440-22-4	2	mg/kg	<2	<2	----	----	----	
Arsenic	7440-38-2	5	mg/kg	<5	<5	----	----	----	
Cadmium	7440-43-9	1	mg/kg	<1	<1	----	----	----	
Chromium	7440-47-3	2	mg/kg	30	26	----	----	----	
Copper	7440-50-8	5	mg/kg	17	16	----	----	----	
Lead	7439-92-1	5	mg/kg	10	9	----	----	----	
Nickel	7440-02-0	2	mg/kg	23	20	----	----	----	
Zinc	7440-66-6	5	mg/kg	59	48	----	----	----	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	----	----	----	