



Environmental Forensics Report of Analysis
Project 20230184

Report #: 1722
Date Issued: 14-Jul-2023
Page 1 of 14

Client Project Reference: Menindee Fish Kill - 30 (IMT 24 May

Customer: Department of Planning & Environment

Attention: [REDACTED]

Report Date: 14 July 2023

Project Received: 26 May 2023

EF Project Contact: [REDACTED]
[REDACTED]
[REDACTED]



The following samples were analysed:

Sample ID	Client ID	Sample Type	Client Sampled Date/Time	Aliquot
234234	E8	Liquid	24/05/2023 9:30AM	
234241	E8	Liquid	24/05/2023 9:30AM	Field Aliquot
234242	E8	Liquid	24/05/2023 9:30AM	Field Aliquot
234255	E8	Liquid	24/05/2023 9:30AM	Field Aliquot
234262	E8	Liquid	24/05/2023 9:30AM	Field Aliquot
234269	E8	Liquid	24/05/2023 9:30AM	Field Aliquot
234446	E8	Liquid	24/05/2023 9:30AM	Field Aliquot
234447	E8	Liquid	24/05/2023 9:30AM	Field Aliquot
234448	E8	Liquid	24/05/2023 9:30AM	Field Aliquot
234235	E9	Liquid	24/05/2023 10:00AM	
234243	E9	Liquid	24/05/2023 10:00AM	Field Aliquot
234244	E9	Liquid	24/05/2023 10:00AM	Field Aliquot
234256	E9	Liquid	24/05/2023 10:00AM	Field Aliquot
234263	E9	Liquid	24/05/2023 10:00AM	Field Aliquot
234270	E9	Liquid	24/05/2023 10:00AM	Field Aliquot
234449	E9	Liquid	24/05/2023 10:00AM	Field Aliquot
234450	E9	Liquid	24/05/2023 10:00AM	Field Aliquot
234451	E9	Liquid	24/05/2023 10:00AM	Field Aliquot
234236	E10	Liquid	24/05/2023 11:00AM	
234245	E10	Liquid	24/05/2023 11:00AM	Field Aliquot
234246	E10	Liquid	24/05/2023 11:00AM	Field Aliquot
234257	E10	Liquid	24/05/2023 11:00AM	Field Aliquot
234264	E10	Liquid	24/05/2023 11:00AM	Field Aliquot
234271	E10	Liquid	24/05/2023 11:00AM	Field Aliquot
234452	E10	Liquid	24/05/2023 11:00AM	Field Aliquot
234453	E10	Liquid	24/05/2023 11:00AM	Field Aliquot
234454	E10	Liquid	24/05/2023 11:00AM	Field Aliquot
234237	B4	Liquid	24/05/2023 1:30PM	
234247	B4	Liquid	24/05/2023 1:30PM	Field Aliquot

Tests not covered by NATA accreditation 3040 are denoted with *

Codes: SN = Sample Note

RN = Result Note

RC = Project Comment



234248	B4	Liquid	24/05/2023	1:30PM	Field Aliquot
234258	B4	Liquid	24/05/2023	1:30PM	Field Aliquot
234265	B4	Liquid	24/05/2023	1:30PM	Field Aliquot
234272	B4	Liquid	24/05/2023	1:30PM	Field Aliquot
234455	B4	Liquid	24/05/2023	1:30PM	Field Aliquot
234456	B4	Liquid	24/05/2023	1:30PM	Field Aliquot
234457	B4	Liquid	24/05/2023	1:30PM	Field Aliquot
234238	E6	Liquid	24/05/2023	2:10PM	
234249	E6	Liquid	24/05/2023	2:10PM	Field Aliquot
234250	E6	Liquid	24/05/2023	2:10PM	Field Aliquot
234259	E6	Liquid	24/05/2023	2:10PM	Field Aliquot
234266	E6	Liquid	24/05/2023	2:10PM	Field Aliquot
234273	E6	Liquid	24/05/2023	2:10PM	Field Aliquot
234458	E6	Liquid	24/05/2023	2:10PM	Field Aliquot
234459	E6	Liquid	24/05/2023	2:10PM	Field Aliquot
234460	E6	Liquid	24/05/2023	2:10PM	Field Aliquot
234239	E6.5	Liquid	24/05/2023	3:00PM	
234251	E6.5	Liquid	24/05/2023	3:00PM	Field Aliquot
234252	E6.5	Liquid	24/05/2023	3:00PM	Field Aliquot
234260	E6.5	Liquid	24/05/2023	3:00PM	Field Aliquot
234267	E6.5	Liquid	24/05/2023	3:00PM	Field Aliquot
234274	E6.5	Liquid	24/05/2023	3:00PM	Field Aliquot
234461	E6.5	Liquid	24/05/2023	3:00PM	Field Aliquot
234462	E6.5	Liquid	24/05/2023	3:00PM	Field Aliquot
234463	E6.5	Liquid	24/05/2023	3:00PM	Field Aliquot
234240	E7	Liquid	24/05/2023	3:30PM	
234253	E7	Liquid	24/05/2023	3:30PM	Field Aliquot
234254	E7	Liquid	24/05/2023	3:30PM	Field Aliquot
234261	E7	Liquid	24/05/2023	3:30PM	Field Aliquot
234268	E7	Liquid	24/05/2023	3:30PM	Field Aliquot
234275	E7	Liquid	24/05/2023	3:30PM	Field Aliquot

Tests not covered by NATA accreditation 3040 are denoted with *

Codes: SN = Sample Note

RN = Result Note

RC = Project Comment



234464	E7	Liquid	24/05/2023	3:30PM	Field Aliquot
234465	E7	Liquid	24/05/2023	3:30PM	Field Aliquot
234466	E7	Liquid	24/05/2023	3:30PM	Field Aliquot

Report Notes

- This document has been authorised by the person whose name appears in this report.
- This report shall not be reproduced except in full. Samples analysed as received from the client.
- Results reported as 'less than' (<) indicates a result below the practical quantitation limit for the sample matrix and method used.

Project Comments

· Samples 234241, 234243, 234245, 234247, 234249, 234251, 234253 were sent to ALS Environmental Laboratory (NATA Accreditation no: 825) for the analysis of EP202A -Phenoxycetic Acid Herbicides by LCMS and EP204 - Glyphosate and AMPA. This report summarises data from the attached external report: ES2317837, dated 05-Jun-2023.

· Samples 234446 to 234466 were sent to ALS Environmental Laboratory (NATA Accreditation no: 825) for the analysis of EK055G - Ammonia as N by Discrete Analyser, EK059G - Nitrite plus Nitrate as N (NOx) by Discrete Analyser, EK061F - Filtered Total Kjeldahl Nitrogen as N (TKN), EK061G - Total Kjeldahl Nitrogen By Discrete Analyser, EK062F - Filtered Total Nitrogen as N, EK062G - Total Nitrogen as N (TKN + NOx) by Discrete Analyser, EK067FG - Filtered Total Phosphorus as P by Discrete Analyser, EK067G - Total Phosphorus as P by Discrete Analyser, EK071G - Reactive Phosphorus as P by discrete analyser. This report summarises data from the attached external report: ES2318508, dated 06-Jun-2023.

· Samples 234242, 234244, 234246, 234248, 234250, 234252 and 234254 were analysed outside the method holding time for Total suspended solids

· Samples 234269 to 234275 were sent to Sydney Water Laboratory Services (NATA Accreditation no: 63 and 610) for the analysis of Blue-Green Algal ID and Enumeration. Please see detailed results in the attached Phytoplankton Analysis Report no. 286397 dated 17 June 2023.

Samples 234255 to 234261 were sent to Sydney Water Laboratory Services (NATA Accreditation no: 63 and 610) for the analysis of Algal Toxins. Please see the attached Analytical Report No: 286397 dated 17 June 2023, which gives Algal Toxins analysis results and the Blue-Green Algal ID and Enumeration summary results.

Tests not covered by NATA accreditation 3040 are denoted with *

Codes: SN = Sample Note

RN = Result Note

RC = Project Comment



Analysis Results - External Methods*		<i>Sample ID</i>	234255	234269	234256	234270	234257	234271	234258	234272	234259	234273	234260	234274
Area - EXTERNAL		<i>Start Date</i>	29/05/2023	13/06/2023	29/05/2023	13/06/2023	29/05/2023	13/06/2023	29/05/2023	13/06/2023	29/05/2023	13/06/2023	29/05/2023	13/06/2023
		<i>Client ID</i>	E8	E8	E9	E9	E10	E10	B4	B4	E6	E6	E6.5	E6.5
<i>Analyte</i>														
Algal Enumeration	-			RC		RC		RC		RC		RC		RC
Algal Identification	-			RC		RC		RC		RC		RC		RC
Algal Toxins	-		RC		RC		RC		RC		RC		RC	

Analysis Results - External Methods*		<i>Sample ID</i>	234261	234275
Area - EXTERNAL		<i>Start Date</i>	29/05/2023	13/06/2023
		<i>Client ID</i>	E7	E7
<i>Analyte</i>				
Algal Enumeration	-			RC
Algal Identification	-			RC
Algal Toxins	-		RC	

Tests not covered by NATA accreditation 3040 are denoted with *

Codes: SN = Sample Note

RN = Result Note

RC = Project Comment



Analysis Results - External Methods*

Area - EXTERNAL

Analyte	Sample ID Start Date Client ID	234241	234243	234245	234247	234249	234251	234253
		31/05/2023 E8	31/05/2023 E9	31/05/2023 E10	31/05/2023 B4	31/05/2023 E6	31/05/2023 E6.5	31/05/2023 E7
2.4.5-T	µg/L	<10	<10	<10	<10	<10	<10	<10
2.4.6-T	µg/L	<10	<10	<10	<10	<10	<10	<10
2.4-D	µg/L	<10	<10	<10	<10	<10	<10	<10
2.4-DB	µg/L	<10	<10	<10	<10	<10	<10	<10
2.4-DP	µg/L	<10	<10	<10	<10	<10	<10	<10
2.6-D	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorophenoxy acetic acid	µg/L	<10	<10	<10	<10	<10	<10	<10
AMPA	µg/L	<10	<10	<10	<10	<10	<10	<10
Clopyralid	µg/L	<10	<10	<10	<10	<10	<10	<10
Dicamba	µg/L	<10	<10	<10	<10	<10	<10	<10
Fluroxypyr	µg/L	<10	<10	<10	<10	<10	<10	<10
Glyphosate	µg/L	<10	<10	<10	<10	<10	<10	<10
MCPA	µg/L	<10	<10	<10	<10	<10	<10	<10
MCPB	µg/L	<10	<10	<10	<10	<10	<10	<10
Mecoprop	µg/L	<10	<10	<10	<10	<10	<10	<10
Pricloram	µg/L	<10	<10	<10	<10	<10	<10	<10
Silvex (2.4.5-TP/Fenoprop)	µg/L	<10	<10	<10	<10	<10	<10	<10
Triclopyr	µg/L	<10	<10	<10	<10	<10	<10	<10

Analysis Results - External Methods*

Area - EXTERNAL

Analyte	Sample ID Start Date Client ID	234446	234447	234448	234449	234450	234451	234452	234453	234454	234455	234456	234457
		2/06/2023 E8 Filtered 1	2/06/2023 E8 Filtered 2	2/06/2023 E8 Unfiltered	2/06/2023 E9 Filtered 1	2/06/2023 E9 Filtered 2	2/06/2023 E9 Unfiltered	2/06/2023 E10 Filtered 1	2/06/2023 E10 Filtered 2	2/06/2023 E10 Unfiltered	2/06/2023 B4 Filtered 1	2/06/2023 B4 Filtered 2	2/06/2023 B4 Unfiltered
^ Filtered Total Nitrogen as N	mg/L		0.8			0.8			1.0			0.5	
^ Total Nitrogen as N	mg/L			0.9			1.1			1.3			0.6
Ammonia as N	mg/L	0.05			0.05			0.05			<0.01		
Dissolved TKN as N	mg/L		0.7			0.7			0.9			0.5	
Filtered Total Phosphorus as P	mg/L		0.14			0.13			0.12			0.23	
Nitrite+Nitrate as N	mg/L	0.04	0.05	0.04	0.05	0.06	0.06	0.06	0.07	0.06	0.01	0.02	<0.01
Reactive Phosphorus as P	mg/L	0.11			0.14			0.09			0.24		
Total Kjeldahl Nitrogen as N	mg/L			0.9				1.0			1.2		0.6
Total Phosphorus as P	mg/L			0.23				0.23			0.22		0.30

Tests not covered by NATA accreditation 3040 are denoted with *

Codes: SN = Sample Note

RN = Result Note

RC = Project Comment



Analysis Results - External Methods*

Area - EXTERNAL

Analyte	Sample ID Start Date Client ID	234458	234459	234460	234461	234462	234463	234464	234465	234466
		2/06/2023 E6 Filtered 1	2/06/2023 E6 Filtered 2	2/06/2023 E6 Unfiltered	2/06/2023 E6.5 Filtered 1	2/06/2023 E6.5 Filtered 2	2/06/2023 E6.5 Unfiltered	2/06/2023 E7 Filtered 1	2/06/2023 E7 Filtered 2	2/06/2023 E7 Unfiltered
^ Filtered Total Nitrogen as N	mg/L		0.9			0.6			0.7	
^ Total Nitrogen as N	mg/L			2.0			0.7			1.3
Ammonia as N	mg/L	<0.01			<0.01			0.06		
Dissolved TKN as N	mg/L		0.9			0.6			0.7	
Filtered Total Phosphorus as P	mg/L		0.05			0.20			0.23	
Nitrite+Nitrate as N	mg/L	0.01	0.02	<0.01	0.06	0.02	0.01	0.01	0.02	0.01
Reactive Phosphorus as P	mg/L	0.01			0.20			0.22		
Total Kjeldahl Nitrogen as N	mg/L			2.0			0.7			1.3
Total Phosphorus as P	mg/L			0.24			0.31			0.37

Tests not covered by NATA accreditation 3040 are denoted with *

Codes: SN = Sample Note

RN = Result Note

RC = Project Comment



Analysis Results - ICVAASW

Area - INORGANIC

Analyte

		234262	234263	234264	234265	234266	234267	234268
		30/05/2023	30/05/2023	30/05/2023	30/05/2023	30/05/2023	30/05/2023	30/05/2023
		E8	E9	E10	B4	E6	E6.5	E7
Mercury	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Analysis Results - ICPAES

Area - INORGANIC

Analyte

		234262	234263	234264	234265	234266	234267	234268
		29/05/2023	29/05/2023	29/05/2023	29/05/2023	29/05/2023	29/05/2023	29/05/2023
		E8	E9	E10	B4	E6	E6.5	E7
Aluminium (Lab. filtered)	mg/L	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Barium (Lab. filtered)	mg/L	0.11	0.10	0.10	0.10	0.10	0.09	0.10
Boron (Lab. filtered)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Calcium (Lab. filtered)	mg/L	32	32	31	33	31	32	34
Iron (Lab. filtered)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Magnesium (Lab. filtered)	mg/L	14	14	15	13	14	14	14
Potassium (Lab. filtered)	mg/L	11	11	11	11	12	12	11
Sodium (Lab. filtered)	mg/L	38	39	41	39	45	43	40
Strontium (Lab. filtered)	mg/L	0.36	0.34	0.35	0.34	0.35	0.35	0.35
Sulfur (Lab. filtered)	mg/L	3.6	3.4	3.2	4.4	4.2	4.4	4.4
Titanium (Lab. filtered)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Tests not covered by NATA accreditation 3040 are denoted with *

Codes: SN = Sample Note

RN = Result Note

RC = Project Comment



Analysis Results - ICPMS
Area - INORGANIC

	<i>Sample ID</i>	234262	234263	234264	234265	234266	234267	234268
	<i>Start Date</i>	29/05/2023	29/05/2023	29/05/2023	29/05/2023	29/05/2023	29/05/2023	29/05/2023
	<i>Client ID</i>	E8	E9	E10	B4	E6	E6.5	E7
<i>Analyte</i>								
Antimony (Lab. filtered)	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (Lab. filtered)	mg/L	0.005	0.005	0.005	0.007	0.005	0.007	0.007
Beryllium (Lab. filtered)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Cadmium (Lab. filtered)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium (Lab. filtered)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt (Lab. filtered)	mg/L	0.0001	0.0002	0.0003	<0.0001	0.0007	0.0002	0.0002
Copper (Lab. filtered)	mg/L	0.0024	0.0023	0.0024	0.0026	0.0018	0.0024	0.0022
Lead (Lab. filtered)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Lithium (Lab. filtered)	mg/L	0.0018	0.0018	0.0020	0.0022	0.0022	0.0024	0.0022
Manganese (Lab. filtered)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum (Lab. filtered)	mg/L	0.0014	0.0013	0.0013	0.0014	0.0016	0.0014	0.0014
Nickel (Lab. filtered)	mg/L	0.0029	0.0030	0.0033	0.0023	0.0025	0.0022	0.0023
Selenium (Lab. filtered)	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Silver (Lab. filtered)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Thallium (Lab. filtered)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Tin (Lab. filtered)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Vanadium (Lab. filtered)	mg/L	0.013	0.014	0.012	0.019	0.013	0.022	0.021
Zinc (Lab. filtered)	mg/L	0.002	<0.001	0.001	0.001	0.001	0.002	<0.001

Tests not covered by NATA accreditation 3040 are denoted with *

Codes: SN = Sample Note

RN = Result Note

RC = Project Comment



Analysis Results - ICPAES

Area - INORGANIC

<i>Sample ID</i>	<i>Start Date</i>	<i>Client ID</i>	234262	234263	234264	234265	234266	234267	234268
			29/05/2023	29/05/2023	29/05/2023	29/05/2023	29/05/2023	29/05/2023	29/05/2023
			E8	E9	E10	B4	E6	E6.5	E7

<i>Analyte</i>									
Aluminium (acid extractable)	mg/L	5.7	6.2	6.2	2.3	2.0	2.1	4.6	
Barium (acid extractable)	mg/L	0.13	0.13	0.14	0.11	0.12	0.10	0.12	
Boron (acid extractable)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Calcium (acid extractable)	mg/L	36	35	34	34	32	34	36	
Iron (acid extractable)	mg/L	4.0	4.6	4.5	1.5	1.3	1.4	3.2	
Magnesium (acid extractable)	mg/L	16	15	16	14	14	15	15	
Manganese (acid extractable)	mg/L	0.09	0.11	0.15		0.09	0.03	0.06	
Potassium (acid extractable)	mg/L	12	12	13	12	13	13	13	
Sodium (acid extractable)	mg/L	41	41	44	40	45	44	41	
Strontium (acid extractable)	mg/L	0.38	0.36	0.39	0.35	0.37	0.36	0.37	
Sulfur (acid extractable)	mg/L	3.7	3.4	3.4	4.4	4.4	4.5	4.5	
Titanium (acid extractable)	mg/L	0.07	0.07	0.07	0.04	0.02	0.03	0.05	

Tests not covered by NATA accreditation 3040 are denoted with *

Codes: SN = Sample Note

RN = Result Note

RC = Project Comment



Analysis Results - ICPMS

Area - INORGANIC

Sample ID	Start Date	Client ID	234262 29/05/2023 E8	234263 29/05/2023 E9	234264 29/05/2023 E10	234265 29/05/2023 B4	234266 29/05/2023 E6	234267 29/05/2023 E6.5	234268 29/05/2023 E7
-----------	------------	-----------	----------------------------	----------------------------	-----------------------------	----------------------------	----------------------------	------------------------------	----------------------------

Analyte		234262 29/05/2023 E8	234263 29/05/2023 E9	234264 29/05/2023 E10	234265 29/05/2023 B4	234266 29/05/2023 E6	234267 29/05/2023 E6.5	234268 29/05/2023 E7
Antimony (acid extractable)	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (acid extractable)	mg/L	0.005	0.005	0.005	0.007	0.005	0.007	0.007
Beryllium (acid extractable)	mg/L	0.0002	0.0002	0.0002	<0.0001	<0.0001	<0.0001	0.0001
Cadmium (acid extractable)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium (acid extractable)	mg/L	0.006	0.006	0.006	0.002	0.002	0.002	0.004
Cobalt (acid extractable)	mg/L	0.0018	0.0021	0.0024	0.0005	0.0015	0.0007	0.0014
Copper (acid extractable)	mg/L	0.0055	0.0059	0.0056	0.0040	0.0035	0.0040	0.0048
Lead (acid extractable)	mg/L	0.0012	0.0014	0.0014	0.0004	0.0006	0.0005	0.0011
Lithium (acid extractable)	mg/L	0.0035	0.0038	0.0038	0.0028	0.0027	0.0031	0.0036
Manganese (acid extractable)	mg/L				0.016			
Molybdenum (acid extractable)	mg/L	0.0015	0.0014	0.0014	0.0014	0.0017	0.0015	0.0014
Nickel (acid extractable)	mg/L	0.0068	0.0073	0.0074	0.0038	0.0042	0.0038	0.0053
Selenium (acid extractable)	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Silver (acid extractable)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Thallium (acid extractable)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Tin (acid extractable)	mg/L	<0.0002	<0.0002	<0.0002	0.0003	0.0005	<0.0002	<0.0002
Vanadium (acid extractable)	mg/L	0.022	0.024	0.023	0.023	0.017	0.025	0.028
Zinc (acid extractable)	mg/L	0.014	0.011	0.011	0.005	0.005	0.006	0.009

Analysis Results - IGRSS

Area - INORGANIC

Sample ID	Start Date	Client ID	234242 8/06/2023 E8	234244 8/06/2023 E9	234246 8/06/2023 E10	234248 8/06/2023 B4	234250 8/06/2023 E6	234252 8/06/2023 E6.5	234254 8/06/2023 E7
-----------	------------	-----------	---------------------------	---------------------------	----------------------------	---------------------------	---------------------------	-----------------------------	---------------------------

Analyte		234242 8/06/2023 E8	234244 8/06/2023 E9	234246 8/06/2023 E10	234248 8/06/2023 B4	234250 8/06/2023 E6	234252 8/06/2023 E6.5	234254 8/06/2023 E7
Fixed Suspended Solids	mg/L	36	69	71	12	22	16	55
Total Suspended Solids	mg/L	44	81	83	15	31	21	65
Volatile Suspended Solids	mg/L	7	11	13	<4	9	5	10

Tests not covered by NATA accreditation 3040 are denoted with *

Codes: SN = Sample Note

RN = Result Note

RC = Project Comment



Analysis Results - QQPEST

Area - ORGANIC

Analyte	Sample ID Start Date Client ID	234234	234235	234236	234237	234238	234239	234240
		9/06/2023 E8	31/05/2023 E9	31/05/2023 E10	31/05/2023 B4	31/05/2023 E6	31/05/2023 E6.5	31/05/2023 E7
Aldrin	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Allethrin	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Alpha-Chlordane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
alpha-HCH	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Ametryn	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Atraton	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Atrazine	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
beta-HCH	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bifenthrin	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bioresmethrin	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carbophenothion	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorpyrifos	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Cis-permethrin	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Crotoxyphos	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cyfluthrin	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cypermethrin	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
delta-HCH	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Deltamethrin	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorvos	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Dieldrin	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Endosulfan II	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Endosulfan I	µg/L	<0.9	<0.9	<0.9	<0.9	<0.9	<0.9	<0.9
Endosulfan Sulfate	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Endrin Aldehyde	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Endrin Ketone	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Endrin	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenamiphos	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenthion	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4

Tests not covered by NATA accreditation 3040 are denoted with *

Codes: SN = Sample Note

RN = Result Note

RC = Project Comment



Analysis Results - QQPEST

Area - ORGANIC

		Sample ID	234234	234235	234236	234237	234238	234239	234240
		Start Date	9/06/2023	31/05/2023	31/05/2023	31/05/2023	31/05/2023	31/05/2023	31/05/2023
		Client ID	E8	E9	E10	B4	E6	E6.5	E7
Analyte									
Fenvalerate	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Gamma-Chlordane	µg/L		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
gamma-HCH	µg/L		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Heptachlor Epoxide	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Heptachlor	µg/L		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Hexachlorobenzene	µg/L		<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Hexazinone	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
L-cyhalothrin	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Malathion	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methidathion	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methyl Azinphos	µg/L		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Methyl Chlorpyrifos	µg/L		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Methyl Parathion	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Mevinphos	µg/L		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Oxyfluorfen	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Parathion	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phorate	µg/L		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Profenofos	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Prometon	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Prometryn	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Propargite	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Propazine	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Propetamphos	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Simazine	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Simetryn	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sulprofos	µg/L		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Tebuconazole	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tebuthiuron	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Terbutylazine	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Terbutryn	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachlorvinphos	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trans-permethrin	µg/L		<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7

Tests not covered by NATA accreditation 3040 are denoted with *

Codes: SN = Sample Note

RN = Result Note

RC = Project Comment

Area - ORGANIC

Sample ID	Client ID	Method	Start Date	Result
234234	E8	OLCSCAN* - LC/MS Scan	31/05/2023	LC/MS scan for approximately 600 pesticides was negative. A list of analysed compounds can be provided on request. Note the list doesn't include glyphosate and quaternary ammonium herbicides (e.g. Paraquat and Diquat).
234235	E9	OLCSCAN* - LC/MS Scan	31/05/2023	LC/MS scan for approximately 600 pesticides was negative. A list of analysed compounds can be provided on request. Note the list doesn't include glyphosate and quaternary ammonium herbicides (e.g. Paraquat and Diquat).
234236	E10	OLCSCAN* - LC/MS Scan	31/05/2023	LC/MS scan for approximately 600 pesticides was negative. A list of analysed compounds can be provided on request. Note the list doesn't include glyphosate and quaternary ammonium herbicides (e.g. Paraquat and Diquat).
234237	B4	OLCSCAN* - LC/MS Scan	31/05/2023	LC/MS scan for approximately 600 pesticides was negative. A list of analysed compounds can be provided on request. Note the list doesn't include glyphosate and quaternary ammonium herbicides (e.g. Paraquat and Diquat).
234238	E6	OLCSCAN* - LC/MS Scan	31/05/2023	LC/MS scan for approximately 600 pesticides was negative. A list of analysed compounds can be provided on request. Note the list doesn't include glyphosate and quaternary ammonium herbicides (e.g. Paraquat and Diquat).
234239	E6.5	OLCSCAN* - LC/MS Scan	31/05/2023	LC/MS scan for approximately 600 pesticides was negative. A list of analysed compounds can be provided on request. Note the list doesn't include glyphosate and quaternary ammonium herbicides (e.g. Paraquat and Diquat).
234240	E7	OLCSCAN* - LC/MS Scan	31/05/2023	LC/MS scan for approximately 600 pesticides was negative. A list of analysed compounds can be provided on request. Note the list doesn't include glyphosate and quaternary ammonium herbicides (e.g. Paraquat and Diquat).

The sample(s) referred to in this report were analysed by the following method(s):

Method code	Method description	Area
External Methods*	External Methods - Analysis completed externally	EXTERNAL
External Methods*	External Methods - Analysis completed externally	EXTERNAL
External Methods*	External Methods - Analysis completed externally	EXTERNAL
ICVAASW	Mercury by Cold Vapour Atomic Absorption Spectroscopy	INORGANIC
ICPAES	Dissolved element analysis by Inductively Coupled Plasma-Atomic Emission Spectrometry (ICPAES)	INORGANIC
ICPMS	Dissolved Metals by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)	INORGANIC
ICPAES	Acid extractable element analysis by Inductively Coupled Plasma-Atomic Emission Spectrometry (ICPAES)	INORGANIC
ICPMS	Acid extractable Metals by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)	INORGANIC
IGRTSS	Total Suspended Solids (TSS) (includes Volatile and Fixed Suspended Solids)	INORGANIC
QQQPEST	Determination of Multiresidue Pesticides by GCMSMS	ORGANIC
OLCSCAN*	Qualitative LC/MS scan	ORGANIC

The results in this report were authorised by:

Name	Title	Area
██████████	Senior Scientist	EXTERNAL
██████████	Scientist	INORGANIC
██████████	Scientist	ORGANIC

Tests not covered by NATA accreditation 3040 are denoted with *

Codes: SN = Sample Note

RN = Result Note

RC = Project Comment